

Table S1. The clinicopathological data of the laryngeal cancer cases involved in the primary tissue culture

| Case coding* | Gender | Age at diagnosis | Smoking status | Alcohol status | Histological type | TNM staging [†] | Tumor differentiation |
|--------------|--------|------------------|----------------|----------------|--------------------------------------|--------------------------|-----------------------|
| LC01 | male | 63 | Yes | Yes | Supraglottic squamous cell carcinoma | T4N2M0 | Moderate |
| LC14 | male | 73 | Yes | Yes | Supraglottic squamous cell carcinoma | T3N2M0 | Moderate |
| LC53 | male | 54 | Yes | No | Supraglottic squamous cell carcinoma | T3N2M0 | Moderate |
| LC95 | male | 50 | Yes | Yes | Glottic squamous cell carcinoma | T3N1M0 | Poor |

*LC represents laryngeal cancer.

[†] staged according to Sixth Edition (2002) of the AJCC-UICC TNM Staging System.

Table S2. The clinical characteristics of the 149 patients with laryngeal SCC used for ELISA

| Variable | N (%) | Variable | N(%) |
|-------------------|------------|-----------------------|------------|
| Age (years) | | Disease stage | |
| ≤55 | 58 (38.9) | I | 33 (22.1) |
| >55 | 91 (61.1) | II | 32 (21.5) |
| Median (range) | 58 (35-82) | III | 41 (27.5) |
| | | IV | 41 (27.5) |
| | | Missing | 2 (1.3) |
| Gender | | T stage* | |
| Male | 140 (94.0) | T1 | 33 (21.5) |
| Female | 9 (6.0) | T2 | 36 (24.2) |
| | | T3 | 52 (34.9) |
| | | T4 | 26 (17.4) |
| | | Missing | 2 (1.3) |
| Smoking status | | Lymph node status | |
| Ever | 124 (83.2) | pN0 | 110 (73.8) |
| Never | 11 (7.4) | pN+ | 37 (24.8) |
| Missing | 14 (9.4) | Missing | 2 (1.3) |
| Alcohol status | | Tumor differentiation | |
| Yes | 84 (56.4) | well | 34 (22.8) |
| No | 51(34.2) | moderate | 78 (52.3) |
| Missing | 14 (9.4) | poor | 24 (16.1) |
| | | Missing | 13 (8.7) |
| Anatomical region | | | |
| Glottis | 82 (55.0) | | |
| Supraglottis | 60 (40.3) | | |
| Subglottis | 1 (0.7) | | |
| Missing | 6 (4.0) | | |

* staged according to Sixth Edition (2002) of the AJCC-UICC TNM Staging System.

Table S3. The clinical characteristics of the 70 patients as the sources of preoperative and postoperative blood samples

| Variable | N (%) | Variable | N(%) |
|-------------------|------------|-----------------------|-----------|
| Age (years) | | T stage* | |
| ≤55 | 27 (38.6) | T1 | 11 (15.7) |
| >55 | 43 (61.4) | T2 | 11 (15.7) |
| Median (range) | 59 (40-82) | T3 | 27 (38.6) |
| | | T4 | 17 (24.3) |
| | | Missing | 4 (5.7) |
| Gender | | Lymph node status | |
| Male | 68 (97.1) | pN0 | 43 (61.4) |
| Female | 2 (2.9) | pN+ | 23 (32.9) |
| | | Missing | 4 (5.7) |
| Anatomical region | | Tumor differentiation | |
| Glottis | 36 (51.4) | well | 14 (20.0) |
| Supraglottis | 28 (40.0) | moderate | 41 (58.6) |
| Subglottis | 1 (1.4) | poor | 10 (14.3) |
| Missing | 5 (7.1) | Missing | 5 (7.1) |
| Disease | | | |
| I | 11 (15.7) | | |
| II | 11 (15.7) | | |
| III | 22 (31.4) | | |
| IV | 22 (31.4) | | |
| Missing | 4 (5.7) | | |

* staged according to Sixth Edition (2002) of the AJCC-UICC TNM Staging System.

Table S4. The protein identifications in all the CM samples

| Gene name | Description | MW | pI | N1 | N14 | N53 | N95 | T1 | T14 | T53 | T95 |
|-----------|--|----------|----------|----|-----|-----|-----|----|-----|-----|-----|
| CLIC1 | Chloride intracellular channel protein 1 | 26905.75 | 4.552361 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ACTN4 | Alpha-actinin-4 | 104788.5 | 4.792366 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IDH1 | Isocitrate dehydrogenase [NADP] cytoplasmic | 46629.51 | 4.901527 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LDHA | L-lactate dehydrogenase A chain | 36665.36 | 5.837837 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| F13A1 | Coagulation factor XIII A chain | 83214.6 | 4.660027 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PGK1 | Phosphoglycerate kinase 1 | 44586.13 | 6.564583 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CA1 | Carbonic anhydrase 1 | 28852.39 | 5.473824 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | Ig kappa chain V-III region SIE | 11767.84 | 4.285545 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGKC | Ig kappa chain C region | 11601.67 | 4.599464 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGHG1 | Ig gamma-1 chain C region | 36083.17 | 5.57711 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGHA1 | Ig alpha-1 chain C region | 37630.64 | 5.226448 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGHA2 | Ig alpha-2 chain C region | 36503.01 | 5.122093 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LMNA | Lamin-A/C | 74094.71 | 5.645149 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FGG | Fibrinogen gamma chain | 51478.87 | 4.340981 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ALB | Serum albumin | 69321.49 | 5.051598 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MMP1 | Interstitial collagenase | 53972.78 | 4.874825 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ALDOA | Fructose-bisphosphate aldolase A | 39395.31 | 5.413475 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ANXA1 | Annexin A1 | 38689.98 | 5.054909 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GAPDH | Glyceraldehyde-3-phosphate dehydrogenase | 36030.4 | 5.922539 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSPB1 | Heat shock protein beta-1 | 22768.49 | 5.121132 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GSN | Gelsolin | 85644.19 | 4.900246 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ENO1 | Alpha-enolase | 47139.32 | 5.217903 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| P4HB | Protein disulfide-isomerase | 57080.67 | 4.507607 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ANXA2 | Annexin A2 | 38579.81 | 4.683418 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CTSL1 | Cathepsin L1 | 37539.67 | 4.436897 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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|----------|---------------------------------------|----------|----------|---|---|---|---|---|---|---|---|
| HSP90AA1 | Heat shock protein HSP 90-alpha | 84606.68 | 4.575111 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| THBS1 | Thrombospondin-1 | 129299.6 | 4.356895 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSPA1A | Heat shock 70 kDa protein 1 | 70009.04 | 4.860725 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSP90AB1 | Heat shock protein HSP 90-beta | 83212.1 | 4.599358 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MMP3 | Stromelysin-1 | 53943.29 | 4.797813 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VIM | Vimentin | 53619.08 | 4.683418 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ANXA5 | Annexin A5 | 35914.4 | 4.453026 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GSTP1 | Glutathione S-transferase P | 23341.02 | 4.118065 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSPA5 | 78 kDa glucose-regulated protein | 72288.43 | 4.748039 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSPA8 | Heat shock cognate 71 kDa protein | 70854.22 | 4.825798 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| COL6A3 | Collagen alpha-3(VI) chain | 343452.8 | 5.171654 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ANXA3 | Annexin A3 | 36352.66 | 4.764809 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| EEF2 | Elongation factor 2 | 95276.95 | 5.217476 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LCP1 | Plastin-2 | 70244.84 | 4.675407 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSP90B1 | Endoplasmic | 92411.34 | 4.475349 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| EZR | Ezrin | 69369.74 | 5.085564 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| DSP | Desmoplakin | 331568.7 | 5.13694 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VCL | Vinculin | 123721.8 | 5.229652 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PGAM1 | Phosphoglycerate mutase 1 | 28785.83 | 5.327278 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SDC1 | Syndecan-1 | 32456.83 | 4.365013 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PPIB | Peptidyl-prolyl cis-trans isomerase B | 23727.53 | 9.024773 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PSMA4 | Proteasome subunit alpha type-4 | 29465.18 | 4.961555 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MSN | Moesin | 67777.79 | 5.292992 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TKT | Transketolase | 67834.72 | 5.550835 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PRDX6 | Peroxiredoxin-6 | 25019.19 | 5.206581 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SERPINB1 | Leukocyte elastase inhibitor | 42714.7 | 4.986763 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| YWHAB | 14-3-3 protein beta/alpha | 28064.83 | 4.288322 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SFN | 14-3-3 protein sigma | 27756.69 | 4.292915 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| HSPA4 | Heat shock 70 kDa protein 4 | 94271.24 | 4.676582 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TALDO1 | Transaldolase | 37516.46 | 5.158089 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GDI2 | Rab GDP dissociation inhibitor beta | 50630.88 | 4.491585 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LUM | Lumican | 38404.79 | 4.608223 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PGD | 6-phosphogluconate dehydrogenase, decarboxylating | 53105.95 | 5.222282 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| VCP | Transitional endoplasmic reticulum ATPase | 89265.72 | 4.834129 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| NPEPPS | Puromycin-sensitive aminopeptidase | 103210.7 | 4.693245 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TPI1 | Triosephosphate isomerase | 26652.74 | 5.462929 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ACTR3 | Actin-related protein 3 | 47340.98 | 4.616768 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| YWHAE | 14-3-3 protein epsilon | 29155.42 | 4.193367 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HIST1H4A | Histone H4 | 11360.38 | 11.33447 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PPIA | Peptidyl-prolyl cis-trans isomerase A | 18000.88 | 6.427971 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| RPS27A | Ubiquitin | 8559.617 | 5.727928 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| YWHAZ | 14-3-3 protein zeta/delta | 27727.73 | 4.263756 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HBB | Hemoglobin subunit beta | 15988.29 | 6.101128 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| HBA1 | Hemoglobin subunit alpha | 15247.93 | 6.783974 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GSTO1 | Glutathione S-transferase omega-1 | 27548.04 | 4.847694 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CLTC | Clathrin heavy chain 1 | 191492.5 | 4.581413 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PSME1 | Proteasome activator complex subunit 1 | 28705.01 | 5.041557 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PRDX1 | Peroxiredoxin-1 | 22096.28 | 5.780907 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TRAP1 | Heat shock protein 75 kDa, mitochondrial | 80059.69 | 5.454491 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TGFB1 | Transforming growth factor-beta-induced protein ig-h3 | 74633.98 | 5.535027 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| GLOD4 | Glyoxalase domain-containing protein 4 | 34771.25 | 4.656075 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PSMA7 | Proteasome subunit alpha type-7 | 27869.61 | 5.300041 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| ALDH1A1 | Retinal dehydrogenase 1 | 54826.95 | 4.90078 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| NP | Purine nucleoside phosphorylase | 32097.16 | 5.142921 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGLC1 | Ig lambda chain C regions | 11229.53 | 4.891914 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| IGHG3 | Ig gamma-3 chain C region | 41260.36 | 5.79351 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| IGHG4 | Ig gamma-4 chain C region | 35917.87 | 4.997871 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FGB | Fibrinogen beta chain | 55892.26 | 5.143883 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| FN1 | Fibronectin | 262442.1 | 4.429314 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| TF | Serotransferrin | 76999.61 | 5.106071 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| LTF | Lactotransferrin | 78131.91 | 5.604774 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FTL | Ferritin light chain | 20007.1 | 4.786598 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CSTB | Cystatin-B | 11132.59 | 5.887718 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| S100A8 | Protein S100-A8 | 10827.65 | 5.460152 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| SERPINE1 | Plasminogen activator inhibitor 1 | 45031.03 | 5.595055 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| S100A9 | Protein S100-A9 | 13233.51 | 5.553505 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| GPI | Glucose-6-phosphate isomerase | 63107.24 | 6.022835 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LDHB | L-lactate dehydrogenase B chain | 36615.14 | 4.992317 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CAPN1 | Calpain-1 catalytic subunit | 81838.19 | 4.74398 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| DCN | Decorin | 39721.84 | 6.312187 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PFN1 | Profilin-1 | 15044.56 | 5.174644 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MMP2 | 72 kDa type IV collagenase | 73834.71 | 4.356895 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| LAMC1 | Laminin subunit gamma-1 | 177488.5 | 4.56913 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ACTN1 | Alpha-actinin-1 | 102992.6 | 4.74868 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CDH1 | Epithelial cadherin | 97395.86 | 4.200951 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PDIA4 | Protein disulfide-isomerase A4 | 72886.97 | 4.442238 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| AKR1A1 | Alcohol dehydrogenase [NADP+] | 36549.86 | 4.850578 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PKM2 | Pyruvate kinase isozymes M1/M2 | 57900.02 | 6.00959 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| GOT1 | Aspartate aminotransferase, cytoplasmic | 46218.53 | 5.119316 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LGALS3 | Galectin-3 | 26136.05 | 4.393425 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| TYMP | Thymidine phosphorylase | 49924.17 | 5.275261 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| OGN | Mimecan | 33900.88 | 4.623177 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| UBA1 | Ubiquitin-like modifier-activating enzyme 1 | 117774.3 | 4.740456 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| TNC | Tenascin | 240713.2 | 4.368538 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| EEF1G | Elongation factor 1-gamma | 50087.14 | 4.988045 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CALR | Calreticulin | 48111.82 | 4.054939 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PEBP1 | Phosphatidylethanolamine-binding protein 1 | 21043.67 | 4.87632 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PDIA3 | Protein disulfide-isomerase A3 | 56746.75 | 4.860298 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| S100A11 | Protein S100-A11 | 11732.82 | 4.989113 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| PRDX2 | Peroxiredoxin-2 | 21878.24 | 4.682991 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SERPINB5 | Serpin B5 | 42111.45 | 5.245461 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| COL18A1 | Collagen alpha-1(XVIII) chain | 178077.1 | 5.186501 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CAPG | Macrophage-capping protein | 38493.51 | 5.059502 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| ADH7 | Alcohol dehydrogenase class 4 mu/sigma chain | 39979.54 | 6.657402 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| MDH1 | Malate dehydrogenase, cytoplasmic | 36403.02 | 5.27227 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| MDH2 | Malate dehydrogenase, mitochondrial | 35480.73 | 8.062401 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| IQGAP1 | Ras GTPase-activating-like protein IQGAP1 | 189133.8 | 4.870659 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CAPZB | F-actin-capping protein subunit beta | 31330.77 | 4.582161 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| ARHGDIA | Rho GDP-dissociation inhibitor 1 | 23192.7 | 4.486351 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| CAPZA1 | F-actin-capping protein subunit alpha-1 | 32902.33 | 4.721336 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| BLVRA | Biliverdin reductase A | 33407.33 | 5.342125 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PSMA6 | Proteasome subunit alpha type-6 | 27381.81 | 4.777306 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| YWHAG | 14-3-3 protein gamma | 28284.91 | 4.203407 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| LCN2 | Neutrophil gelatinase-associated lipocalin | 22573.72 | 5.108849 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| HSPG2 | Basement membrane-specific heparan sulfate proteoglycan core protein | 468500.5 | 5.185219 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| COL14A1 | Collagen alpha-1(XIV) chain | 193394.5 | 4.537407 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| TGM3 | Protein-glutamine gamma-glutamyltransferase E | 76709.71 | 4.84182 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| ILF2 | Interleukin enhancer-binding factor 2 | 43035.19 | 4.836266 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| NACA | Nascent polypeptide-associated complex subunit alpha | 23369.71 | 4.424934 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

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|-----------|---|----------|----------|---|---|---|---|---|---|---|---|
| BLMH | Bleomycin hydrolase | 52528.02 | 4.94265 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PDIA6 | Protein disulfide-isomerase A6 | 48091.26 | 4.556206 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| PLEC1 | Plectin-1 | 531466 | 5.145699 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ECM1 | Extracellular matrix protein 1 | 60635.27 | 5.563118 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| PGM2 | Phosphoglucomutase-2 | 68240.39 | 5.017097 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| FAM49B | Protein FAM49B | 36724.65 | 4.897896 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| DPP3 | Dipeptidyl-peptidase 3 | 82537.8 | 4.377724 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| SERPINB13 | Serpin B13 | 44248.15 | 4.864357 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| A2ML1 | Alpha-2-macroglobulin-like protein 1 | 161001.1 | 4.369499 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| KLK10 | Kallikrein-10 | 30118.31 | 7.076103 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| FLNB | Filamin-B | 278021 | 4.637276 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| PGLS | 6-phosphogluconolactonase | 27529.55 | 5.247276 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| SOD1 | Superoxide dismutase [Cu-Zn] | 15925.9 | 5.696098 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| GOT2 | Aspartate aminotransferase, mitochondrial | 47445.27 | 6.602287 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| TIMP1 | Metalloproteinase inhibitor 1 | 23155.55 | 6.278862 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| IGHG2 | Ig gamma-2 chain C region | 35877.76 | 5.371925 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 1 |
| KRT6A | Keratin, type II cytoskeletal 6A | 60008.27 | 5.035789 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| FGA | Fibrinogen alpha chain | 94914.41 | 4.889244 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| CAT | Catalase | 59718.75 | 5.311577 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| SOD2 | Superoxide dismutase [Mn], mitochondrial | 24706.55 | 5.605522 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| KRT1 | Keratin, type II cytoskeletal 1 | 65977.99 | 4.738533 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| SERPINB2 | Plasminogen activator inhibitor 2 | 46566.15 | 4.655327 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| RPLP0 | 60S acidic ribosomal protein P0 | 34251.8 | 5.000221 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| ATP5B | ATP synthase subunit beta, mitochondrial | 56524.6 | 4.693993 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| HIST1H2BJ | Histone H2B type 1-J | 13895.58 | 10.16573 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| IVL | Involucrin | 68427.18 | 4.596581 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| ANXA4 | Annexin A4 | 35860.12 | 4.697197 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| LTA4H | Leukotriene A-4 hydrolase | 69241.24 | 4.774529 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| ALDOC | Fructose-bisphosphate aldolase C | 39431.24 | 4.916267 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| CKMT1A | Creatine kinase, ubiquitous mitochondrial | 47007.21 | 5.930229 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PEPD | Xaa-Pro dipeptidase | 54512.91 | 4.890419 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| XRCC6 | ATP-dependent DNA helicase 2 subunit 1 | 69799.05 | 5.020515 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| RNH1 | Ribonuclease inhibitor | 49941.09 | 4.610466 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| KRT10 | Keratin, type I cytoskeletal 10 | 59474.91 | 4.259911 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| KRT5 | Keratin, type II cytoskeletal 5 | 62339.98 | 5.008018 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PLS3 | Plastin-3 | 70391.1 | 4.874504 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| APEH | Acylamino-acid-releasing enzyme | 81172.61 | 4.609505 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| ANXA8 | Annexin A8 | 36857.65 | 4.651482 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| ENO3 | Beta-enolase | 46957.32 | 5.343193 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| MIF | Macrophage migration inhibitory factor | 12468.22 | 4.633858 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| MMP9 | Matrix metalloproteinase-9 | 78349.31 | 4.545311 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| NME1 | Nucleoside diphosphate kinase A | 17137.67 | 5.081398 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| HSPA6 | Heat shock 70 kDa protein 6 | 70984.22 | 5.091545 | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| KRT4 | Keratin, type II cytoskeletal 4 | 57249.83 | 5.151466 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PSMB1 | Proteasome subunit beta type-1 | 26472.37 | 4.968071 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| TNXB | Tenascin-X | 464164.8 | 4.624565 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| WARS | Tryptophanyl-tRNA synthetase, cytoplasmic | 53131.61 | 4.826973 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| AHCY | Adenosylhomocysteinase | 47685.2 | 4.828148 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| CFL1 | Cofilin-1 | 18490.66 | 5.187996 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| PSMA1 | Proteasome subunit alpha type-1 | 29536.86 | 5.158836 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| SERPINB3 | Serpin B3 | 44536.54 | 5.124123 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| BLVRB | Flavin reductase | 22105.43 | 5.774071 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| PRDX3 | Thioredoxin-dependent peroxide reductase, mitochondrial | 27675.18 | 5.954155 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| ALDH3A1 | Aldehyde dehydrogenase, dimeric NADP-preferring | 50346.85 | 4.791298 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| HSPA1L | Heat shock 70 kDa protein 1L | 70331.32 | 4.932076 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| MYH9 | Myosin-9 | 226391.6 | 5.119423 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| NAMPT | Nicotinamide phosphoribosyltransferase | 55486.59 | 4.75605 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 1 |
| PSMB2 | Proteasome subunit beta type-2 | 22821.68 | 4.462959 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 1 |
| ARPC4 | Actin-related protein 2/3 complex subunit 4 | 19654.3 | 6.532112 | 1 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| EEF1A1 | Elongation factor 1-alpha 1 | 50109.11 | 6.807365 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| HIST1H3A | Histone H3.1 | 15394.48 | 11.0935 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| CAP1 | Adenylyl cyclase-associated protein 1 | 51822.7 | 5.734337 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| MTAP | S-methyl-5'-thioadenosine phosphorylase | 31215.84 | 5.859306 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| SPTAN1 | Spectrin alpha chain, brain | 284364.2 | 4.942009 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| POSTN | Periostin | 93255.27 | 5.506935 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| RUNDC3A | RUN domain-containing protein 3A | 49715.79 | 4.658424 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 1 |
| NCCRP1 | Non-specific cytotoxic cell receptor protein 1 homolog | 30827.88 | 5.516975 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| CAND1 | Cullin-associated NEDD8-dissociated protein 1 | 136288.7 | 4.811378 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| TXNDC5 | Thioredoxin domain-containing protein 5 | 47598.66 | 4.884438 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| PACAP | Proapoptotic caspase adapter protein | 20681.23 | 4.687904 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| CNDP2 | Cytosolic non-specific dipeptidase | 52844.91 | 4.713966 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| PARK7 | Protein DJ-1 | 19878.49 | 5.47126 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0 |
| ERAP1 | Endoplasmic reticulum aminopeptidase 1 | 107166.3 | 4.958778 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 1 |
| NUDT5 | ADP-sugar pyrophosphatase | 24312.24 | 4.47065 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 1 |
| PSME2 | Proteasome activator complex subunit 2 | 27344.31 | 4.78788 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 |
| QSOX1 | Sulfhydryl oxidase 1 | 82525.5 | 6.878609 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| GGCT | Gamma-glutamylcyclotransferase | 20994.33 | 4.403999 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| CLSTN1 | Calsyntenin-1 | 109723.7 | 4.482399 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| GSR | Glutathione reductase, mitochondrial | 56220.95 | 6.251732 | 0 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| CA2 | Carbonic anhydrase 2 | 29227.92 | 5.69268 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 0 |
| SERPINA1 | Alpha-1-antitrypsin | 46707.02 | 5.012291 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| A2M | Alpha-2-macroglobulin | 163174.9 | 4.784035 | 1 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |

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|---------------|--|----------|----------|---|---|---|---|---|---|---|---|
| C3 | Complement C3 | 187029.9 | 4.842781 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| IGJ | Immunoglobulin J chain | 15584.55 | 4.181938 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| KRT14 | Keratin, type I cytoskeletal 14 | 51589.44 | 4.595619 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| VWF | von Willebrand factor | 309092 | 5.32 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| RPN2 | Dolichyl-diphosphooligosaccharide--protein glycosyltransferase subunit 2 | 69240.97 | 4.670387 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| MPO | Myeloperoxidase | 83814.84 | 6.447517 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| IL6 | Interleukin-6 | 23703.14 | 5.310188 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| CTSD | Cathepsin D | 44523.63 | 4.373131 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| SOD3 | Extracellular superoxide dismutase [Cu-Zn] | 25834.67 | 5.694817 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| KRT19 | Keratin, type I cytoskeletal 19 | 44065.11 | 4.511452 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| HNRNPA1 | Heterogeneous nuclear ribonucleoprotein A1 | 38822.13 | 5.178169 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| HIST1H2A G | Histone H2A type 1 | 14082.95 | 10.83843 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| COL6A1 | Collagen alpha-1(VI) chain | 108462 | 4.665581 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| XRCC5 | ATP-dependent DNA helicase 2 subunit 2 | 82652.27 | 5.061638 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 1 |
| KRT13 | Keratin, type I cytoskeletal 13 | 49555.4 | 4.462105 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| JUP | Junction plakoglobin | 81692.73 | 4.798454 | 1 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| CBR1 | Carbonyl reductase [NADPH] 1 | 30355.86 | 7.011162 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| FAH | Fumarylacetoacetase | 46344.21 | 5.133095 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| KRT15 | Keratin, type I cytoskeletal 15 | 49167.06 | 4.410622 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| FLNA | Filamin-A | 280563.9 | 4.752205 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| BGN | Biglycan | 41627.54 | 5.454491 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| GPX3 | Glutathione peroxidase 3 | 25499.03 | 4.985054 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| NME2 | Nucleoside diphosphate kinase B | 17286.94 | 6.09568 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| PSMA2 | Proteasome subunit alpha type-2 | 25882.27 | 4.520531 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| PTX3 | Pentraxin-related protein PTX3 | 41992.83 | 4.9 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 |
| YWHAQ | 14-3-3 protein theta | 27746.77 | 4.211098 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| PSMB4 | Proteasome subunit beta type-4 | 29185.48 | 4.22007 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 1 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| S100A2 | Protein S100-A2 | 11109.36 | 4.454735 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| SDC4 | Syndecan-4 | 21628.03 | 4.139854 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| KRT9 | Keratin, type I cytoskeletal 9 | 62091.91 | 4.278709 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 1 |
| CHI3L1 | Chitinase-3-like protein 1 | 42598.4 | 5.187675 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| TAGLN2 | Transgelin-2 | 22377.17 | 5.07296 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| SERPINB9 | Serpin B9 | 42376.31 | 5.088234 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 1 |
| ST13 | Hsc70-interacting protein | 41305.48 | 4.916695 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| AK2 | Adenylate kinase 2, mitochondrial | 26460.77 | 5.797142 | 1 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| EIF3B | Eukaryotic translation initiation factor 3 subunit B | 92423.82 | 4.590599 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 0 |
| ACTB | Actin, cytoplasmic 1 | 41709.73 | 4.503334 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| ACTR2 | Actin-related protein 2 | 44732.23 | 4.871727 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| RPL10A | 60S ribosomal protein L10a | 24815.53 | 9.763481 | 1 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| EIF5A | Eukaryotic translation initiation factor 5A-1 | 16821.4 | 4.749962 | 0 | 1 | 1 | 1 | 0 | 1 | 1 | 0 |
| TUBA1B | Tubulin alpha-1B chain | 50119.6 | 4.335213 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 1 |
| FABP5 | Fatty acid-binding protein, epidermal | 15154.55 | 5.536949 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 1 |
| KRT17 | Keratin, type I cytoskeletal 17 | 48076.04 | 4.523415 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| CRYZ | Quinone oxidoreductase | 35184.54 | 5.45385 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 1 |
| LGALS3BP | Galectin-3-binding protein | 65289.28 | 4.341515 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| HNRNPD | Heterogeneous nuclear ribonucleoprotein D0 | 38410.3 | 4.626381 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 1 |
| KPNB1 | Importin subunit beta-1 | 97108.01 | 4.3256 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 |
| SF3B3 | Splicing factor 3B subunit 3 | 135491.7 | 4.555138 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| ERO1L | ERO1-like protein alpha | 54358.05 | 4.733299 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 1 |
| FAM129B | Niban-like protein 1 | 82630.93 | 4.888176 | 1 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| VAT1 | Synaptic vesicle membrane protein VAT-1 homolog | 41893.42 | 4.937096 | 0 | 1 | 1 | 1 | 1 | 1 | 0 | 0 |
| UGCGL1 | UDP-glucose:glycoprotein glucosyltransferase 1 | 177078 | 4.577568 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| PIR | Pirin | 32093.26 | 5.673882 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |

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|---------------|--|----------|----------|---|---|---|---|---|---|---|---|
| ARPC2 | Actin-related protein 2/3 complex subunit 2 | 34311.48 | 5.300682 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| ARPC3 | Actin-related protein 2/3 complex subunit 3 | 20533.37 | 8.78 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| AKR1B10 | Aldo-keto reductase family 1 member B10 | 35997.82 | 5.344261 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 1 |
| CUTA | Protein CutA | 19104.11 | 4.660774 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| WDR1 | WD repeat-containing protein 1 | 66151.87 | 4.816399 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| CS | Citrate synthase, mitochondrial | 51679.51 | 5.411125 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| GLUD1 | Glutamate dehydrogenase 1, mitochondrial | 61359.19 | 5.222816 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| ASS1 | Argininosuccinate synthase | 46500.96 | 5.074883 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| | Ig lambda chain V-IV region Bau | 11298.43 | 3.158363 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| | Ig heavy chain V-III region BRO | 13218.4 | 0.995857 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| PIGR | Polymeric immunoglobulin receptor | 83231.65 | 4.657249 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| HBD | Hemoglobin subunit delta | 16045.29 | 6.356728 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| FTTH1 | Ferritin heavy chain | 21212.29 | 4.575539 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 |
| APOB | Apolipoprotein B-100 | 515240.8 | 5.101158 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| HIST1H2A B | Histone H2A type 1-B/E | 14126.95 | 11.00004 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| KRT8 | Keratin, type II cytoskeletal 8 | 53671.13 | 4.774956 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 1 |
| PTMA | Prothymosin alpha | 12195.97 | 3.686119 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| CEACAM5 | Carcinoembryonic antigen-related cell adhesion molecule 5 | 76748.17 | 5.43 | 1 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| LAMB1 | Laminin subunit beta-1 | 197936.6 | 4.416603 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| ANXA6 | Annexin A6 | 75825.58 | 4.739815 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| KRT16 | Keratin, type I cytoskeletal 16 | 51236.2 | 4.512733 | 0 | 1 | 1 | 1 | 0 | 0 | 1 | 0 |
| PTPRF | Receptor-type tyr ine-protein ph phatase F | 212744.5 | 5.92 | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| ALAD | Delta-aminolevulinic acid dehydratase | 36271.41 | 4.9795 | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 |
| IL1RN | Interleukin-1 receptor antagonist protein | 20041.96 | 5.23542 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| AZU1 | Azurocidin | 26868.65 | 9.405235 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| APEX1 | DNA-(apurinic or apyrimidinic site) lyase | 35532.17 | 5.294273 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| PSMB8 | Proteasome subunit beta type-8 | 30334.61 | 4.59124 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| PRDX5 | Peroxiredoxin-5, mitochondrial | 22012.49 | 8.629143 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| DSG3 | Desmoglein-3 | 107435.4 | 4.38456 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| RDX | Radixin | 68521.39 | 5.293953 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 1 |
| KRT2 | Keratin, type II cytoskeletal 2 epidermal | 65825.39 | 5.12252 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| GARS | Glycyl-tRNA synthetase | 83086.59 | 5.21801 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| GNPDA1 | Glucosamine-6-phosphate isomerase 1 | 32647.58 | 5.024361 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| CAPZA2 | F-actin-capping protein subunit alpha-2 | 32928.61 | 4.799736 | 1 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| PREP | Prolyl endopeptidase | 80648.03 | 4.353371 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| HDGF | Hepatoma-derived growth factor | 26771.87 | 4.539757 | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 |
| ARHGDIB | Rho GDP-dissociation inhibitor 2 | 22973.6 | 4.602242 | 0 | 0 | 1 | 1 | 0 | 1 | 1 | 0 |
| UBE2K | Ubiquitin-conjugating enzyme E2 K | 22392.57 | 4.663872 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 1 |
| LYZ | Lysozyme C | 16526.28 | 8.480034 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| AP2B1 | AP-2 complex subunit beta-1 | 104486 | 4.566353 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| ACTC1 | Actin, alpha cardiac muscle 1 | 41991.88 | 5.23 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
| CYCS | Cytochrome c | 11741.13 | 9.077003 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| PITPNA | Phosphatidylinositol transfer protein alpha isoform | 31786.02 | 4.892342 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| SELENBP1 | Selenium-binding protein 1 | 52357.62 | 4.791405 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 |
| PLS1 | Plastin-1 | 70209.26 | 4.760429 | 1 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| GANAB | Neutral alpha-glucosidase AB | 106806.6 | 4.713112 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| MVP | Major vault protein | 99265.93 | 4.923424 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0 |
| CLCA4 | Calcium-activated chloride channel regulator 4 | 101219.1 | 4.662056 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| SEPT2 | Septin-2 | 41461.25 | 5.379829 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 1 |
| RSU1 | Ras suppressor protein 1 | 31520.69 | 5.727928 | 0 | 1 | 0 | 1 | 0 | 1 | 1 | 0 |
| TSN | Translin | 26166.78 | 5.041878 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 1 |
| DDB1 | DNA damage-binding protein 1 | 126887.3 | 4.570625 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| HADH | Hydroxyacyl-coenzyme A dehydrogenase, mitochondrial | 34255.9 | 6.462471 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |

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|-----------|--|----------|----------|---|---|---|---|---|---|---|---|
| UGP2 | UTP--glucose-1-phosphate uridylyltransferase | 56904.72 | 5.48568 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 1 |
| PDCD6IP | Programmed cell death 6-interacting protein | 95963.12 | 4.716743 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| HSPH1 | Heat shock protein 105 kDa | 96803.66 | 4.85186 | 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 |
| ISOC1 | Isochorismatase domain-containing protein 1 | 32216.12 | 5.593132 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 0 |
| ABHD14B | Abhydrolase domain-containing protein 14B | 22331.56 | 5.039101 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| VPS35 | Vacuolar protein sorting-associated protein 35 | 91648.93 | 4.657997 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| LGMN | Legumain | 49379.41 | 4.704353 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| COL12A1 | Collagen alpha-1(XII) chain | 332940.5 | 4.503014 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| API5 | Apoptosis inhibitor 5 | 57525.14 | 4.967003 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| XPNPPEP1 | Xaa-Pro aminopeptidase 1 | 69873.24 | 4.667397 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| SPRR3 | Small proline-rich protein 3 | 18142.23 | 8.076607 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| CRNN | Cornulin | 53501.64 | 5.420738 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| USP25 | Ubiquitin carboxyl-terminal hydrolase 25 | 125671.3 | 4.69976 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 0 |
| NAGK | N-acetyl-D-glucosamine kinase | 37351.92 | 4.818855 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |
| CORO1C | Coronin-1C | 53215.06 | 5.46389 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| TLN1 | Talin-1 | 269599 | 5.272804 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 |
| HEBP2 | Heme-binding protein 2 | 22861.19 | 4.129387 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 |
| PSAT1 | Phosphoserine aminotransferase | 40396.81 | 4.957069 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| DDX39 | ATP-dependent RNA helicase DDX39 | 49097.95 | 4.916267 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| IPO5 | Importin-5 | 123549.9 | 4.475243 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| AGRN | Agrin | 214706.4 | 5.31414 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| TMPRSS11D | Transmembrane protease, serine 11D | 46234.37 | 5.581169 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| PPL | Periplakin | 204525.9 | 5.056297 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| SYNCRIP | Heterogeneous nuclear ribonucleoprotein Q | 69559.6 | 4.835304 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| M6PRBP1 | Mannose-6-phosphate receptor-binding protein 1 | 47017.91 | 4.943398 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| USO1 | General vesicular transport factor p115 | 107828.1 | 4.85 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| CLIC3 | Chloride intracellular channel protein 3 | 26631.71 | 5.053734 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| AGR2 | Anterior gradient protein 2 homolog | 19966.62 | 5.541542 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| CP | Ceruloplasmin | 122127.6 | 4.370674 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| HPRT1 | Hypoxanthine-guanine phosphoribosyltransferase | 24563.6 | 4.616341 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| HP | Haptoglobin | 45176.56 | 4.657356 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| CFB | Complement factor B | 85478.52 | 4.870232 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| SERPINC1 | Antithrombin-III | 52568.86 | 5.065483 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| SERPINA3 | Alpha-1-antichymotrypsin | 47620.54 | 4.809563 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| CSTA | Cystatin-A | 10999.66 | 4.36544 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | Ig kappa chain V-II region Cum | 12668.31 | 3.851677 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| IGHM | Ig mu chain C region | 49275.53 | 5.167809 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| SLPI | Antileukoproteinase | 14315.91 | 8.963142 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| VTN | Vitronectin | 54271.17 | 4.506111 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| SERPING1 | Plasma protease C1 inhibitor | 55119.39 | 6.09 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| TPM3 | Tropomyosin alpha-3 chain | 32798.74 | 4.540398 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| SERPINE2 | Glia-derived nexin | 43974.2 | 8.915504 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| FH | Fumarate hydratase, mitochondrial | 54602.17 | 6.242973 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| COL1A2 | Collagen alpha-2(I) chain | 129209.4 | 6.620338 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| ELA2 | Leukocyte elastase | 28499.79 | 9.414955 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| CD14 | Monocyte differentiation antigen CD14 | 40050.74 | 5.555 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| KRT7 | Keratin, type II cytoskeletal 7 | 51386.38 | 4.964653 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| FBP1 | Fructose-1,6-bisphosphatase 1 | 36790.79 | 4.66291 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| SPARC | SPARC | 34609.71 | 4.492226 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| C4A | Complement C4-A | 192650.5 | 5.115257 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| H2AFZ | Histone H2A.Z | 13544.55 | 10.51362 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| C9orf14 | Putative uncharacterized protein C9orf14 | 12074.48 | 9.732613 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| IL8 | Interleukin-8 | 11090.93 | 8.913689 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| TROVE2 | 60 kDa SS-A/Ro ribonucleoprotein | 60631.2 | 5.970497 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| TXN | Thioredoxin | 11729.74 | 4.686409 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |

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|------------|---|----------|----------|---|---|---|---|---|---|---|---|
| HSPD1 | 60 kDa heat shock protein, mitochondrial | 61016.38 | 5.174858 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| PABPC1 | Polyadenylate-binding protein 1 | 70625.87 | 7.163475 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| KRT3 | Keratin, type II cytoskeletal 3 | 64464.59 | 4.772285 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| AKR1B1 | Aldose reductase | 35830.49 | 5.13192 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 1 |
| TPSAB1 | Tryptase alpha-1 | 30752.66 | 4.975121 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 1 |
| TIMP2 | Metalloproteinase inhibitor 2 | 24383.13 | 5.225914 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| CAPN2 | Calpain-2 catalytic subunit | 79958.81 | 4.506432 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| HK1 | Hexokinase-1 | 102420.1 | 5.313179 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| PCMT1 | Protein-L-isoaspartate(D-aspartate) O-methyltransferase | 24634.59 | 5.386879 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| HNRNPA2 B1 | Heterogeneous nuclear ribonucleoproteins A2/B1 | 37406.73 | 4.740883 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| TGM1 | Protein-glutamine gamma-glutamyltransferase K | 89730.31 | 4.713646 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| CES1 | Liver carboxylesterase 1 | 62481.15 | 5.107567 | 0 | 1 | 0 | 0 | 1 | 0 | 1 | 0 |
| PSMA3 | Proteasome subunit alpha type-3 | 28415.08 | 4.418312 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| PTBP1 | Polypyrimidine tract-binding protein 1 | 57185.64 | 6.952522 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| TARS | Threonyl-tRNA synthetase, cytoplasmic | 83381.86 | 5.069542 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| PSMB5 | Proteasome subunit beta type-5 | 28462.21 | 4.215797 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| LAP3 | Cytosol aminopeptidase | 56130.81 | 5.640877 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| ERP29 | Endoplasmic reticulum protein ERp29 | 28975.15 | 4.757439 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 |
| CORO1A | Coronin-1A | 50993.8 | 5.35836 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| MAT2A | S-adenosylmethionine synthetase isoform type-2 | 43633.33 | 4.901741 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| PGM1 | Phosphoglucomutase-1 | 61410.53 | 4.926308 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 |
| SERPINF1 | Pigment epithelium-derived factor | 46313.3 | 5.024147 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 0 |
| COL15A1 | Collagen alpha-1(XV) chain | 141631.7 | 4.9 | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 0 |
| DCI | 3,2-trans-enoyl-CoA isomerase, mitochondrial | 32795.24 | 5.994637 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| PPIC | Peptidyl-prolyl cis-trans isomerase C | 22748.84 | 6.188713 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| ARCN1 | Coatomer subunit delta | 57174.12 | 5.190025 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| GSS | Glutathione synthetase | 52352.26 | 4.89875 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| FASN | Fatty acid synthase | 273227.2 | 5.132881 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| PSMB3 | Proteasome subunit beta type-3 | 22933.45 | 4.617409 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| SERPINB8 | Serpin B8 | 42739.19 | 5.41 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 0 |
| ANXA11 | Annexin A11 | 54355.07 | 4.452171 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| STC1 | Stanniocalcin-1 | 27603.78 | 6.384819 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| AKR1C2 | Aldo-keto reductase family 1 member C2 | 36711.96 | 5.140038 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 |
| DEFA1 | Neutrophil defensin 1 | 10194.18 | 4.873436 | 0 | 0 | 0 | 1 | 1 | 0 | 1 | 0 |
| UBE2N | Ubiquitin-conjugating enzyme E2 N | 17126.97 | 5.0093 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| ARF3 | ADP-rib ylation factor 3 | 20587.73 | 6.84 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| B2M | Beta-2-microglobulin | 13705.91 | 4.750069 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| ACTG1 | Actin, cytoplasmic 2 | 41765.79 | 5.31 | 1 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| TPM4 | Tropomyosin alpha-4 chain | 28504.49 | 4.585045 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| SPTBN1 | Spectrin beta chain, brain 1 | 274438.7 | 4.995842 | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 0 |
| TAGLN | Transgelin | 22596.43 | 5.685524 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| DSC2 | Desmocollin-2 | 99898.74 | 4.552361 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| YWHAH | 14-3-3 protein eta | 28201.02 | 4.245598 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| BAX | Apoptosis regulator BAX | 21170.76 | 4.811058 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| ARHGAP1 | Rho GTPase-activating protein 1 | 50404.19 | 4.724968 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| ILF3 | Interleukin enhancer-binding factor 3 | 95279.07 | 5.216621 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| ECH1 | Delta(3,5)-Delta(2,4)-dienoyl-CoA isomerase, mitochondrial | 35793.38 | 5.617165 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| UBE2V1 | Ubiquitin-conjugating enzyme E2 variant 1 | 25780.04 | 5.822029 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 |
| LAMB3 | Laminin subunit beta-3 | 129488.6 | 5.495506 | 0 | 0 | 1 | 1 | 0 | 1 | 0 | 0 |
| LAMC2 | Laminin subunit gamma-2 | 130891.7 | 4.975441 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| TRIM29 | Tripartite motif-containing protein 29 | 65793.3 | 5.332405 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| PTGR1 | Prostaglandin reductase 1 | 35846.73 | 4.927803 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| PPP2R4 | Serine/threonine-protein phosphatase 2A | 40641.44 | 4.830391 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| | regulatory subunit B' | | | | | | | | | | |
| SEPT7 | Septin-7 | 50647.99 | 6.031166 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| VASN | Vasorin | 71667.52 | 5.769157 | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 |
| GBP6 | Guanylate-binding protein 6 | 72380.85 | 5.266823 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| KRT73 | Keratin, type II cytoskeletal 73 | 58886.74 | 4.967323 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| HRNR | Hornerin | 282227.6 | 7.005287 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| KRT78 | Keratin, type II cytoskeletal 78 | 56830.49 | 5.035042 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 1 |
| EVPL | Envoplakin | 231477 | 5.581703 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| KLK6 | Kallikrein-6 | 26838.36 | 5.783363 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| KCTD12 | BTB/POZ domain-containing protein KCTD12 | 35678.69 | 4.496178 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 |
| ABHD8 | Abhydrolase domain-containing protein 8 | 47301.09 | 5.538979 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 0 |
| ACO2 | Aconitate hydratase, mitochondrial | 85371.92 | 5.605629 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 |
| TXNDC4 | Thioredoxin domain-containing protein 4 | 46941.4 | 4.558342 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| ACAT2 | Acetyl-CoA acetyltransferase, cytosolic | 41324.39 | 5.946999 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | 0 |
| RNPEP | Aminopeptidase B | 72549.46 | 4.588783 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 0 |
| MUC5B | Mucin-5B | 590122.1 | 5.249733 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 |
| OLA1 | Obg-like ATPase 1 | 44715.3 | 5.507683 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| MAT2B | Methionine adenosyltransferase 2 subunit beta | 37528.18 | 6.007774 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 1 |
| DMBT1 | Deleted in malignant brain tumors 1 protein | 260568.8 | 4.433479 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 0 |
| GTF2IRD1 | General transcription factor II-I repeat domain-containing protein 1 | 105990.7 | 5.309868 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 |
| KLK13 | Kallikrein-13 | 30550.51 | 6.182945 | 1 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| EIF3L | Eukaryotic translation initiation factor 3 subunit L | 66684.41 | 4.114113 | 0 | 0 | 1 | 0 | 0 | 1 | 1 | 0 |
| DRG1 | Developmentally-regulated GTP-binding protein 1 | 40516.82 | 6.221931 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 |
| DDTL | D-dopachrome decarboxylase-like protein | 14186.27 | 5.555962 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| UNCX | Homeobox protein unc-4 homolog | 53656.79 | 6.12249 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| TMPRSS11 | Transmembrane protease, serine 11E2 | 47656.08 | 5.80291 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |

E2

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|---------|---|----------|----------|---|---|---|---|---|---|---|---|
| | Putative rhophilin-2-like protein | 65902.53 | 4.982597 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| PSMD11 | 26S proteasome non-ATPase regulatory subunit 11 | 47434.04 | 4.889565 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| XPO1 | Exportin-1 | 123306.1 | 4.92823 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| PFAS | Phosphoribosylformylglycinamide synthase | 144572.8 | 5.041023 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| TXNL1 | Thioredoxin-like protein 1 | 32230.73 | 4.480797 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| H2AFY | Core histone macro-H2A.1 | 39592.47 | 9.636909 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| SH3BGRL | SH3 domain-binding glutamic acid-rich-like protein | 12766.38 | 4.477592 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| LYPLA1 | Acyl-protein thioesterase 1 | 24653.49 | 5.621437 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| | CRNN | Cornulin | 53501.64 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| LYPD3 | Ly6/PLAUR domain-containing protein 3 | 35947.62 | 5.862511 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| AHSA1 | Activator of 90 kDa heat shock protein ATPase homolog 1 | 38250.25 | 4.948631 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| ASMTL | N-acetylserotonin O-methyltransferase-like protein | 68812.95 | 4.958244 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| CFD | Complement factor D | 27015.86 | 6.398064 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| INS | Insulin | 11973.02 | 5.22 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Ig kappa chain V-I region AG | 11984.88 | 4.028664 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| | Ig kappa chain V-III region NG9 (Fragment) | 10722.28 | 6.3 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Ig kappa chain V-IV region Len | 12632.19 | 3.508385 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| | Ig lambda chain V-I region HA | 11888.89 | 4.911461 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| | Ig heavy chain V-III region TIL | 12238.88 | 4.29644 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| IGHD | Ig delta chain C region | 42227.24 | 5.96003 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| APOH | Beta-2-glycoprotein 1 | 38272.66 | 5.320549 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| ORM1 | Alpha-1-acid glycoprotein 1 | 23496.76 | 4.228615 | 0 | 0 | 0 | 1 | 0 | 0 | 1 | 0 |
| AHSG | Alpha-2-HS-glycoprotein | 39299.71 | 4.908897 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| A1BG | Alpha-1B-glycoprotein | 54238.58 | 5.013786 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| KRT6B | Keratin, type II cytoskeletal 6B | 59989.26 | 5.030342 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |

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|---------|--|----------|----------|---|---|---|---|---|---|---|---|
| | Ig kappa chain V-III region VG (Fragment) | 12567.3 | 4.85 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Ig kappa chain V-III region VH (Fragment) | 12749.41 | 5.64 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| APP | Amyloid beta A4 protein | 86888.05 | 4.458046 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| SLC25A5 | ADP/ATP translocase 2 | 32874.17 | 8.818092 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | Ig kappa chain V-II region RPMI 6410 | 14697.37 | 9.34 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PYGL | Glycogen phosphorylase, liver form | 97087.03 | 4.93795 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| TUBB | Tubulin beta chain | 49638.97 | 4.282127 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| PRSS1 | Trypsin-1 | 26541.09 | 6.08 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PSAP | Proactivator polypeptide | 58073.85 | 5.06 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| HEXB | Beta-hexosaminidase subunit beta | 63071.18 | 4.729774 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| BPGM | Bisphosphoglycerate mutase | 29986.51 | 5.172615 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| CTSB | Cathepsin B | 37796.83 | 4.518501 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| CTSG | Cathepsin G | 28819.07 | 11.19 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| INHBA | Inhibin beta A chain | 47412.01 | 6.740288 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| CFH | Complement factor H | 139004.7 | 4.542747 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| CXCL1 | Growth-regulated alpha protein | 11294.22 | 10.45957 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| TPM1 | Tropomy in alpha-1 chain | 32688.68 | 4.69 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| DLD | Dihydrolipoyl dehydrogenase, mitochondrial | 54115.92 | 5.806648 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| C1S | Complement C1s subcomponent | 76634.8 | 4.188988 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| PARP1 | Poly [ADP-ribose] polymerase 1 | 113012.4 | 6.115334 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| CLU | Clusterin | 52461.01 | 5.174324 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| PCNA | Proliferating cell nuclear antigen | 28750.29 | 4.257668 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| CKB | Creatine kinase B-type | 42617.32 | 4.840645 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| VCAN | Versican core protein | 372589.5 | 4.182365 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| PRKCSH | Glucosidase 2 subunit beta | 59387.82 | 4.096916 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| IDE | Insulin-degrading enzyme | 117893.3 | 4.902596 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| CPA3 | Mast cell carboxypeptidase A | 48668.78 | 5.521355 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| RAC2 | Ras-related C3 botulinum toxin substrate 2 | 21415.08 | 4.762032 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |

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|--------|--|----------|----------|---|---|---|---|---|---|---|---|
| ARSA | Arylsulfatase A | 53553.68 | 4.642509 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| MUC1 | Mucin-1 | 121999.1 | 6.325432 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| H2AFX | Histone H2A.x | 15135.41 | 10.6262 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | 0 |
| ITGB4 | Integrin beta-4 | 202022.6 | 4.905693 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| NCL | Nucleolin | 76568.36 | 4.513695 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| ITIH2 | Inter-alpha-trypsin inhibitor heavy chain H2 | 106369.6 | 5.126686 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| PI3 | Elafin | 12261.39 | 9.143974 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| ANXA7 | Annexin A7 | 52705.75 | 3.905403 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| MX1 | Interferon-induced GTP-binding protein Mx1 | 75487.23 | 5.022758 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| FUT3 | Galactoside 3(4)-L-fucosyltransferase | 42090.24 | 5.8592 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| CD9 | CD9 antigen | 25398.98 | 4.923958 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| FBLN1 | Fibulin-1 | 77162.35 | 4.515617 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| AZGP1 | Zinc-alpha-2-glycoprotein | 33850.89 | 4.33564 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| PSMB9 | Proteasome subunit beta type-9 | 23249.54 | 4.203087 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| PSMA5 | Proteasome subunit alpha type-5 | 26394.2 | 4.517433 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| PSMB6 | Proteasome subunit beta type-6 | 25341.45 | 4.135796 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| MAPK1 | Mitogen-activated protein kinase 1 | 41363.22 | 4.818214 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| IMPA1 | Inositol monophosphatase | 30169.17 | 4.70916 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| EEF1D | Elongation factor 1-delta | 31102.78 | 4.711617 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| ADSS | Adenylosuccinate synthetase isozyme 2 | 50065.77 | 4.864464 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| GSTT1 | Glutathione S-transferase theta-1 | 27317.56 | 5.35334 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| GDI1 | Rab GDP dissociation inhibitor alpha | 50550.14 | 4.185677 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| CTNNA1 | Catenin alpha-1 | 100008.5 | 5.224739 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| SPRR1A | Cornifin-A | 9870.877 | 8.84565 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| THBS2 | Thrombospondin-2 | 129907.8 | 4.275932 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| HSPA9 | Stress-70 protein, mitochondrial | 73634.77 | 5.185326 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| EIF2S3 | Eukaryotic translation initiation factor 2 subunit 3 | 51077.22 | 6.612968 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| AKR1C3 | Aldo-keto reductase family 1 member C3 | 36820.84 | 5.211494 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| PAFAH1B1 | Platelet-activating factor acetylhydrolase IB subunit alpha | 46608.16 | 5.82737 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| LGALS7 | Galectin-7 | 15065.8 | 6.584129 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| SERPINB4 | Serpin B4 | 44825.48 | 5.86 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CCT5 | T-complex protein 1 subunit epsilon | 59632.81 | 5.14463 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| ALDH9A1 | 4-trimethylaminobutyraldehyde dehydrogenase | 53766.98 | 4.803688 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| SERPINH1 | Serpin H1 | 46411.18 | 6.174614 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| RAB7A | Ras-related protein Rab-7a | 23474.84 | 4.831139 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| THOP1 | Thimet oligopeptidase | 78789.48 | 4.829109 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| ACLY | ATP-citrate synthase | 120761.9 | 6.95 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| CTSC | Dipeptidyl-peptidase 1 | 51808.25 | 4.437431 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| EIF6 | Eukaryotic translation initiation factor 6 | 26582.19 | 4.334679 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| MYL6 | My in light polypeptide 6 | 16919.13 | 4.56 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| EIF4A1 | Eukaryotic initiation factor 4A-I | 46124.55 | 4.682991 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| S100A10 | Protein S100-A10 | 11195.51 | 5.855354 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DSTN | Destrin | 18493.48 | 5.795433 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| RAB10 | Ras-related protein Rab-10 | 22526.59 | 6.322121 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| SNRPD1 | Small nuclear ribonucleoprotein Sm D1 | 13273.36 | 11.5608 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| RAB11A | Ras-related protein Rab-11A | 24378.41 | 4.845772 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| UBE2L3 | Ubiquitin-conjugating enzyme E2 L3 | 17850.24 | 5.784004 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| DCD | Dermcidin | 11276.83 | 5.624962 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| H3F3A | Histone H3.3 | 15318.5 | 11.24709 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| HNRNPU | Heterogeneous nuclear ribonucleoprotein U | 90456.97 | 4.900673 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| EIF4G1 | Eukaryotic translation initiation factor 4 gamma 1 | 175426.4 | 4.899712 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| GLO1 | Lactoylglutathione lyase | 20764.25 | 4.562294 | 0 | 0 | 0 | 0 | 1 | 0 | 1 | 0 |
| AHNAK | Neuroblast differentiation-associated protein AHNAK | 628699.4 | 5.714577 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| DPYD | Dihydropyrimidine dehydrogenase [NADP+] | 111329.3 | 5.06057 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |

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|------------|---|----------|----------|---|---|---|---|---|---|---|---|
| PRDX4 | Peroxiredoxin-4 | 30520.81 | 4.860405 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| PSMD2 | 26S proteasome non-ATPase regulatory subunit 2 | 100135.8 | 4.600426 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 0 |
| PKP1 | Plakophilin-1 | 82807.83 | 6.571312 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| EIF4A2 | Eukaryotic initiation factor 4A-II | 46372.78 | 4.708092 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| NUMA1 | Nuclear mitotic apparatus protein 1 | 238115.2 | 5.413902 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| PCOLCE | Procollagen C-endopeptidase enhancer 1 | 47941.98 | 4.997551 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| PCBP1 | Poly(rC)-binding protein 1 | 37473.94 | 5.67762 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| IGFBP7 | Insulin-like growth factor-binding protein 7 | 29111.44 | 6.121742 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| LAMA4 | Laminin subunit alpha-4 | 202400.6 | 4.901955 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| PSMD5 | 26S proteasome non-ATPase regulatory subunit 5 | 56160.36 | 4.6894 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| FSCN1 | Fascin | 54496.05 | 5.135658 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| KYNU | Kynureninase | 52318.18 | 5.376625 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| LAMA3 | Laminin subunit alpha-3 | 366414 | 5.373314 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| HSP90AB2 P | Putative heat shock protein HSP 90-beta 2 | 44321.11 | 4.430595 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| NAPRT1 | Nicotinate phosphoribosyltransferase | 57542.01 | 4.84214 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| CD109 | CD109 antigen | 161587.3 | 4.555992 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| MOBKL1A | Mps one binder kinase activator-like 1A | 25074.64 | 5.09037 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| KRT74 | Keratin, type II cytoskeletal 74 | 57829.64 | 5.314995 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| ABI3BP | Target of Nesh-SH3 | 118568.8 | 8.814781 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 |
| SLURP2 | Secreted Ly-6/uPAR-related protein 2 | 10152.84 | 5.845528 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 |
| AEBP1 | Adipocyte enhancer-binding protein 1 | 130847 | 4.61132 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| KATNAL2 | Katanin p60 ATPase-containing subunit A-like 2 | 61214.5 | 7.22 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| BPIL1 | Bactericidal/permeability-increasing protein-like 1 | 49141.72 | 6.251518 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| SCFD1 | Sec1 family domain-containing protein 1 | 72334.05 | 4.748573 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| ANP32B | Acidic leucine-rich nuclear phosphoprotein 32 | 28770.31 | 3.870689 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |

| | family member B | | | | | | | | | | |
|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| DCPS | Scavenger mRNA-decapping enzyme DcpS | 38585.02 | 4.967751 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| HNRNPAB | Heterogeneous nuclear ribonucleoprotein A/B | 36202.41 | 4.572762 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| CCT7 | T-complex protein 1 subunit eta | 59328.92 | 5.557564 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| | Uncharacterized protein MGC16385 | 13715.74 | 4.32 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| H2AFJ | Histone H2A.J | 14010.93 | 10.9 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| NIF3L1 | NIF3-like protein 1 | 41941.5 | 5.454811 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| | Haloacid dehalogenase-like hydrolase domain-containing protein 2 | 28517.94 | 5.84 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 |
| SDCBP2 | Syntenin-2 | 31573.75 | 7.156319 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| SPON1 | Spondin-1 | 90913.59 | 5.85 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 |
| IL1F6 | Interleukin-1 family member 6 | 17673.01 | 5.073921 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| ENOPH1 | Enolase-phosphatase E1 | 28914.47 | 4.297935 | 0 | 0 | 1 | 0 | 0 | 1 | 0 | 0 |
| AK3 | GTP:AMP phosphotransferase mitochondrial | 25549.55 | 5.601891 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 0 |
| | Endoplasmic reticulum protein ERp29 | 28975.15 | | | | | | | | | |
| | | | | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| VDAC3 | Voltage-dependent anion-selective channel protein 3 | 30639.29 | 5.203377 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| DERA | Putative deoxyribose-phosphate aldolase | 35208.47 | 6.714226 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 1 |
| UFC1 | Ufm1-conjugating enzyme 1 | 19446.02 | 5.231789 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 |
| SCIN | Adseverin | 80438.44 | 4.68235 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 0 |
| ARHGAP10 | Rho GTPase-activating protein 10 | 89318.34 | 5.622078 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | Keratin-81-like protein | 53375.16 | 5.085457 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | NPIP-like protein ENSP00000346774 | 25989.15 | 11.58814 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Uncharacterized protein ENSP00000361571 | 66294.42 | 5.014534 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | KRT4 | 57249.83 | | | | | | | | | |
| | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

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|---------|---|-----------------|----------|---|---|---|---|---|---|---|---|---|
| | | cytoskeletal 4 | | | | | | | | | | |
| | ACTN4 | Alpha-actinin-4 | 104788.5 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SEPT13 | Septin-13 | 33130.29 | 8.76 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| EML1 | Echinoderm microtubule-associated protein-like 1 | 89762.76 | 5.350243 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CACNA1A | Voltage-dependent P/Q-type calcium channel subunit alpha-1A | 282185.2 | 5.902992 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | ENO1 | Alpha-enolase | 47139.32 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CES2 | Carboxylesterase 2 | 61767.23 | 5.005241 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| PDXK | Pyridoxal kinase | 35079.91 | 4.841499 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| COPE | Coatomer subunit epsilon | 34460.34 | 4.399406 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| OPLAH | 5-oxoprolinase | 137370.6 | 5.285942 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| GIPC1 | PDZ domain-containing protein GIPC1 | 36026.69 | 5.9 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MYLC2B | Myosin regulatory light chain MRLC2 | 19766.52 | 4.472466 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ARPC1B | Actin-related protein 2/3 complex subunit 1B | 40923.41 | 7.542656 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| EIF3H | Eukaryotic translation initiation factor 3 subunit H | 39905.05 | 4.869484 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ARPC5 | Actin-related protein 2/3 complex subunit 5 | 16310.3 | 4.889992 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ZBTB24 | Zinc finger and BTB domain-containing protein 24 | 78232.82 | 6.229088 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TPD52L2 | Tumor protein D54 | 22224.27 | 5.030769 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CA12 | Carbonic anhydrase 12 | 39426.05 | 5.152321 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PLRG1 | Pleiotropic regulator 1 | 57158.1 | 6.945366 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| NUDT21 | Cleavage and polyadenylation specificity factor subunit 5 | 26210.74 | 5.23307 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| NRD1 | Nardilysin | 131488.5 | 4.89 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| KALRN | Kalirin | 339960.3 | 5.057045 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| DIAPH1 | Protein diaphanous homolog 1 | 141257.5 | 4.99894 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

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|---------|--|-----------------|----------|---|---|---|---|---|---|---|---|
| UGDH | UDP-glucose 6-dehydrogenase | 54989.25 | 5.077232 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| CTSL2 | Cathepsin L2 | 37305.12 | 5.730492 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | ACTN1 | Alpha-actinin-1 | 102992.6 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| CRTAP | Cartilage-associated protein | 46531.94 | 4.348778 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| ATP6AP2 | Renin receptor | 38983.32 | 4.603203 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| GLRX3 | Glutaredoxin-3 | 37408.23 | 5.31 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| KRT33A | Keratin, type I cuticular Ha3-I | 45911.39 | 4.437752 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| SEC14L2 | SEC14-like protein 2 | 46115.56 | 5.054268 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DDAH1 | N(G),N(G)-dimethylarginine dimethylaminohydrolase 1 | 31101.93 | 5.002998 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PRKD3 | Serine/threonine-protein kinase D3 | 100406.2 | 6.42 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LETM1 | LETM1 and EF-hand domain-containing protein 1, mitochondrial | 83301.96 | 6.3 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| UTS2 | Urotensin-2 | 14286.44 | 7.67 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| ABCA1 | ATP-binding cassette sub-family A member 1 | 254123 | 4.941154 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| KRT75 | Keratin, type II cytoskeletal 75 | 59467.97 | 5.214058 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| AIFM1 | Apoptosis-inducing factor 1, mitochondrial | 66858.91 | 6.274696 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DDAH2 | N(G),N(G)-dimethylarginine dimethylaminohydrolase 2 | 29625.45 | 5.506721 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ADH1C | Alcohol dehydrogenase 1C | 39841.67 | 8.63 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| MT-CO2 | Cytochrome c oxidase subunit 2 | 25548.21 | 4.67 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EGFR | Epidermal growth factor receptor | 134190.3 | 6.26 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| F2 | Prothrombin | 69992.12 | 4.791832 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| C1R | Complement C1r subcomponent | 80066.81 | 4.481331 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ADA | Adenosine deaminase | 40738.66 | 4.665794 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CST3 | Cystatin-C | 15789.08 | 6.808968 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| LDLR | Low-density lipoprotein receptor | 95313.63 | 4.544563 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Ig lambda chain V-I region NIG-64 | 11446.54 | 4.66 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Ig lambda chain V-III region SH | 11385.59 | 4.367256 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

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|--------|---|---------------------------------|----------|---|---|---|---|---|---|---|---|
| | Ig heavy chain V-III region POM | 12916.23 | 8.05 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Ig heavy chain V-III region GAL | 12628.06 | 4.563683 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HLA-B | HLA class I histocompatibility antigen, B-7 alpha chain | 40434.95 | 4.589745 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| COL1A1 | Collagen alpha-1(I) chain | 138826.6 | 5.127968 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| APOA1 | Apolipoprotein A-I | 30758.93 | 5.56 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SLC4A1 | Band 3 anion transport protein | 101727.4 | 4.569237 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| APCS | Serum amyloid P-component | 25371.13 | 4.415535 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| C1QC | Complement C1q subcomponent subunit C | 25757.14 | 8.61 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AMBP | Protein AMBP | 38973.98 | 5.95 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TFRC | Transferrin receptor protein 1 | 84817.94 | 4.771751 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| HPX | Hemopexin | 51643.27 | 6.55 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C4BPA | C4b-binding protein alpha chain | 66989.4 | 5.069221 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| SEMG1 | Semenogelin-1 | 52099.88 | 6.897835 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| | P4HB | Protein disulfide-isomerase | 57080.67 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| HLA-A | HLA class I histocompatibility antigen, A-3 alpha chain | 40815.17 | 4.667183 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CAPNS1 | Calpain small subunit 1 | 28297.73 | 4.497887 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AMY1A | Alpha-amylase 1 | 57730.91 | 4.745049 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| APOD | Apolipoprotein D | 21261.76 | 5.06 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | LDHB | L-lactate dehydrogenase B chain | 36615.14 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| EIF2S1 | Eukaryotic translation initiation factor 2 subunit 1 | 36089.37 | 4.558235 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| RPLP1 | 60S acidic ribosomal protein P1 | 11506.69 | 4.26 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

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|----------|--|--|----------|---|---|---|---|---|---|---|---|
| SSB | Lupus La protein | 46808.16 | 5.715004 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| KRT18 | Keratin, type I cytoskeletal 18 | 48028.54 | 4.819923 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| UROD | Uroporphyrinogen decarboxylase | 40760.83 | 5.77 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| IGKV4-1 | Ig kappa chain V-IV region (Fragment) | 13371.59 | 5.09 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| NPM1 | Nucleophosmin | 32554.84 | 4.513481 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | YWHAE | 14-3-3 protein epsilon | 29155.42 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| C8G | Complement component C8 gamma chain | 22263.54 | 5.679329 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| GUSB | Beta-glucuronidase | 74684.69 | 6.54 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | PEBP1 | Phosphatidylethanolamine-binding protein 1 | 21043.67 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| HMBS | Porphobilinogen deaminase | 39305.61 | 6.233147 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| GNAI3 | Guanine nucleotide-binding protein G(k) subunit alpha | 40506.27 | 4.630013 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| ENO2 | Gamma-enolase | 47239 | 4.464027 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MMP7 | Matrilysin | 29657.87 | 5.168129 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MMP10 | Stromelysin-2 | 54116.79 | 4.556206 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| LGALS1 | Galectin-1 | 14706.2 | 4.915306 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| RBP1 | Retinol-binding protein 1 | 15839.9 | 4.685661 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TACSTD2 | Tumor-associated calcium signal transducer 2 | 35686.62 | 8.246758 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CSF3 | Granulocyte colony-stimulating factor | 22278.51 | 5.043587 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | Putative heterogeneous nuclear ribonucleoprotein A1-like protein 3 | 34202.28 | 9.23 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| HNRPA1L3 | | | | | | | | | | | |
| GAA | Lysosomal alpha-glucosidase | 105270.8 | 4.652229 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| HLA-B | HLA class I histocompatibility antigen, B-58 alpha chain | 40312.04 | 4.712685 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

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|---------|---|----------|----------|---|---|---|---|---|---|---|---|
| ESD | S-formylglutathione hydrolase | 31442.46 | 4.699333 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PYGB | Glycogen phosphorylase, brain form | 96634.52 | 5.000755 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| G6PD | Glucose-6-phosphate 1-dehydrogenase | 59218.99 | 4.922142 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| HARS | Histidyl-tRNA synthetase, cytoplasmic | 57374.22 | 4.819817 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| COL6A2 | Collagen alpha-2(VI) chain | 108511.9 | 5.85 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PIP | Prolactin-inducible protein | 16561.8 | 4.749107 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CEACAM1 | Carcinoembryonic antigen-related cell adhesion molecule 1 | 57524.71 | 4.461143 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| TPT1 | Translationally-controlled tumor protein | 19582.58 | 4.329231 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ETFA | Electron transfer flavoprotein subunit alpha, mitochondrial | 35057.58 | 8.62 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FDPS | Farnesyl pyrophosphate synthetase | 48244.63 | 5.83 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| SI | Sucrase-isomaltase, intestinal | 209271 | 4.259483 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| NID1 | Nidogen-1 | 136366.8 | 4.441277 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | Eukaryotic translation initiation factor 5A-1 | | | | | | | | | | |
| | EIF5A | | 16821.4 | | | | | | | | |
| | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANPEP | Aminopeptidase N | 109470.9 | 4.395988 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Peptidyl-prolyl cis-trans isomerase A | | | | | | | | | | |
| | PPIA | | 18000.88 | | | | | | | | |
| | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| UCHL3 | Ubiquitin carboxyl-terminal hydrolase isozyme L3 | 26165.97 | 4.542641 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CHRNA2 | Neuronal acetylcholine receptor subunit beta-2 | 56982.07 | 6.33 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

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|--------|--|----------|----------|---|---|---|---|---|---|---|---|
| IGFBP3 | Insulin-like growth factor-binding protein 3 | 31653.74 | 8.256371 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CCT1 | T-complex protein 1 subunit alpha | 60305.58 | 5.151573 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ITIH1 | Inter-alpha-trypsin inhibitor heavy chain H1 | 101325.6 | 6.31 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| TPSB2 | Tryptase beta-2 | 30495.47 | 5.157661 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| LMNB1 | Lamin-B1 | 66367.62 | 4.773567 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PTMS | Parathymosin | 11523.19 | 4.13868 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Placental protein 11 | 42093.97 | 4.295158 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ACO1 | Cytoplasmic aconitate hydratase | 98336.58 | 4.797386 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| PAICS | Multifunctional protein ADE2 | 47049.14 | 5.494972 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| UQCRC2 | Cytochrome b-c1 complex subunit 2, mitochondrial | 48412.88 | 8.74 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MRC1 | Macrophage mann e receptor 1 | 165904.8 | 6.11 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| ITGA6 | Integrin alpha-6 | 126553.2 | 4.799736 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| RPS3 | 40S rib omal protein S3 | 26671.43 | 9.68 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PRTN3 | Myeloblastin | 27789.27 | 7.688026 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| EEF1B2 | Elongation factor 1-beta | 24748.26 | 4.132271 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Extracellular superoxide dismutase [Cu-Zn] | | | | | | | | | | |
| | SOD3 | | 25834.67 | | | | | | | | |
| | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| CTSS | Cathepsin S | 37471.3 | 5.214058 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| S100P | Protein S100-P | 10393.22 | 4.491798 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| U2AF2 | Splicing factor U2AF 65 kDa subunit | 53467.19 | 6.535637 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| GSTM2 | Glutathione S-transferase Mu 2 | 25727.98 | 4.529076 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CRABP2 | Cellular retinoic acid-binding protein 2 | 15683.02 | 5.074883 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | ERO1L | | | | | | | | | | |
| | ERO1-like | | 54358.05 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |

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|----------|--|------------------|----------|---|---|---|---|---|---|---|---|--|
| | | protein alpha | | | | | | | | | | |
| C21orf33 | ES1 protein homolog, mitochondrial | 28152.73 | 7.19445 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| PPP2R1A | Serine/threonine-protein phosphatase 2A 65 kDa regulatory subunit A alpha isoform | 65266.91 | 4.700401 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| ADSL | Adenylosuccinate lyase | 54853.97 | 5.609047 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| GBP1 | Interferon-induced guanylate-binding protein 1 | 67859.68 | 5.057899 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | |
| GBP2 | Interferon-induced guanylate-binding protein 2 | 67140.38 | 5.54 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| MAN1A1 | Mannosyl-oligosaccharide 1,2-alpha- mannosidase IA | 72922.28 | 5.059608 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| GPC1 | Glypican-1 | 61611.01 | 5.472008 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| CTNNB1 | Catenin beta-1 | 85442.21 | 4.920219 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| PHB | Prohibitin | 29785.9 | 5.57 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SERPINB6 | Serpin B6 | 42594.06 | 4.768761 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| FBN1 | Fibrillin-1 | 312097.5 | 4.81 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | |
| COPB2 | Coatomer subunit beta' | 102422.5 | 4.557701 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |
| ACTN2 | Alpha-actinin-2 | 103788.3 | 5.31 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| KRT20 | Keratin, type I cytoskeletal 20 | 48456.92 | 4.873863 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | |
| | Interleuki n-1 family member 6 | 17673.01 | | | | | | | | | | |
| | IL1F6 | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | |
| CPOX | Coproporphyrinogen III oxidase, mitochondrial | 50119.97 | 6.544182 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| PPP1CC | Serine/threonine-protein phosphatase PP1- gamma catalytic subunit | 36959.72 | 4.835625 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| SRP14 | Signal recognition particle 14 kDa protein | 14560.82 | 9.927116 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | |
| ATP6V1A | V-type proton ATPase catalytic subunit A | 68260.49 | 4.510597 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | |

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|--------|---|---|----------|---|---|---|---|---|---|---|---|
| | LYZ | Lysozyme C | 16526.28 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| MMP12 | Macrophage metalloelastase | 53967.14 | 5.133842 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| PSMB10 | Proteasome subunit beta type-10 | 28918.07 | 5.986626 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| PRCP | Lysosomal Pro-X carboxypeptidase | 55763.92 | 6.76 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CXCL5 | C-X-C motif chemokine 5 | 11964.51 | 9.167473 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| MCAM | Cell surface glycoprotein MUC18 | 71562.6 | 5.58 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| VDAC2 | Voltage-dependent anion-selective channel protein 2 | 31546.55 | 7.5 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PSMD8 | 26S proteasome non-ATPase regulatory subunit 8 | 29985.62 | 6.85 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | PITPNA | Phosphatidylinositol transfer protein alpha isoform | 31786.02 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| IDH2 | Isocitrate dehydrogenase [NADP], mitochondrial | 50876.86 | 8.88 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PITPNB | Phosphatidylinositol transfer protein beta isoform | 31519.91 | 5.106178 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | ABHD8 | Abhydrolase domain-containing protein 8 | 47301.09 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | RSU1 | Ras suppressor protein 1 | 31520.69 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| AARS | Alanyl-tRNA synthetase, cytoplasmic | 106743.2 | 4.737999 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

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|---------|---|---|----------|---|---|---|---|---|---|---|---|
| CARS | CysteinyI-tRNA synthetase, cytoplasmic | 85419.23 | 5.182976 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | UGP2 | UTP-- glucose- 1- phosphat e uridylyltr ansferase | 56904.72 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| HINT1 | Histidine triad nucleotide-binding protein 1 | 13793.09 | 6.017174 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| NUP153 | Nuclear pore complex protein Nup153 | 153843.2 | 8.97 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| KLK7 | Kallikrein-7 | 27506.81 | 8.249855 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CAMP | Cathelicidin antimicrobial peptide | 19289.16 | 9.273109 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| | Uncharac terized protein FLJ3965 3 | 29535.18 | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CCT4 | T-complex protein 1 subunit delta | 57887.76 | 6.01226 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| DUSP3 | Dual specificity protein phosphatase 3 | 20465.31 | 4.938591 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| HSD17B4 | Peroxisomal multifunctional enzyme type 2 | 79636.3 | 5.980751 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| HNRNPF | Heterogeneous nuclear ribonucleoprotein F | 45642.85 | 4.415855 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ZNF132 | Zinc finger protein 132 | 80570.98 | 8.77 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| SMS | Spermine synthase | 41241.78 | 4.194221 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PPP5C | Serine/threonine-protein phosphatase 5 | 56842.25 | 4.598717 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| RABGGTB | Geranylgeranyl transferase type-2 subunit beta | 36900.31 | 4.371849 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| COPA | Coatomer subunit alpha | 138257.9 | 7.7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SEC24C | Protein transport protein Sec24C | 118239.1 | 4.578636 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | ALDH2 | Aldehyde dehydrog enase, | 56345.62 | | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|---|
| | | mitochon | drial | | | | | | | | | |
| HSPA2 | Heat shock-related 70 kDa protein 2 | 69977.86 | 4.87632 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| NAPA | Alpha-soluble NSF attachment protein | 33211.28 | 4.48037 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| PLTP | Phospholipid transfer protein | 54704.54 | 5.164818 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| SEC13 | Protein SEC13 homolog | 35518.11 | 5.22 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| EPPK1 | Epiplakin | 552753.7 | 4.858589 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MTPN | Myotrophin | 12886.61 | 4.791084 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| HIST1H2B | | | | | | | | | | | | |
| D | Histone H2B type 1-D | 13927.57 | 10.31 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| UBE2D3 | Ubiquitin-conjugating enzyme E2 D3 | 16676.37 | 4.915413 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| HSPE1 | 10 kDa heat shock protein, mitochondrial | 10924.87 | 5.374702 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| HNRNPK | Heterogeneous nuclear ribonucleoprotein K | 50944.4 | 4.595406 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PSMC6 | 26S protease regulatory subunit S10B | 44145.1 | 7.09 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RPL7A | 60S ribosomal protein L7a | 29977.02 | 10.61 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LCN6 | Epididymal-specific lipocalin-6 | 18033.26 | 4.84 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| ESRRG | Estrogen-related receptor gamma | 51272.63 | 4.85891 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| PPP2CB | Serine/threonine-protein phosphatase 2A catalytic subunit beta isoform | 35552.33 | 4.343544 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| RAN | GTP-binding nuclear protein Ran | 24407.62 | 5.193977 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| RPL30 | 60S ribosomal protein L30 | 12775.74 | 8.806984 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| RPL11 | 60S ribosomal protein L11 | 20239.64 | 9.095161 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| GRB2 | Growth factor receptor-bound protein 2 | 25190.43 | 4.940514 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| UBE2I | SUMO-conjugating enzyme UBC9 | 17995.2 | 6.124199 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| TUBA4A | Tubulin alpha-4A chain | 49892.37 | 4.338951 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| PAFAH1B2 | Platelet-activating factor acetylhydrolase IB subunit beta | 25553.12 | 5.57 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| PSPH | Phosphoserine phosphatase | 24991.9 | 5.53 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| KRT83 | Keratin, type II cuticular Hb3 | 54160.51 | 4.868629 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| RELN | Reelin | 388166.5 | 4.550545 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |

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|--------|--|----------|----------|---|---|---|---|---|---|---|---|
| PRKDC | DNA-dependent protein kinase catalytic subunit | 468787.9 | 6.75 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LRP2 | Low-density lipoprotein receptor-related protein 2 | 521615.6 | 4.89 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SORD | Sorbitol dehydrogenase | 38271.84 | 6.0756 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SET | Protein SET | 33468.7 | 4.079399 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| FKBP4 | FK506-binding protein 4 | 51772.07 | 4.762566 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MUC2 | Mucin-2 | 539958.3 | 4.579277 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| NUCB1 | Nucleobindin-1 | 53846.33 | 4.922142 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| ACY1 | Aminoacylase-1 | 45855.99 | 5.77 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| LMNB2 | Lamin-B2 | 67647.49 | 4.970421 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | Mannose-6-phosphate receptor-binding protein 1 | | | | | | | | | | |
| | M6PRBP1 | 47017.91 | | | | | | | | | |
| | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| GBE1 | 1,4-alpha-glucan-branching enzyme | 80408.62 | 4.467552 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AKR1C1 | Aldo-keto reductase family 1 member C1 | 36765.02 | 5.160545 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| LRP1 | Prolow-density lipoprotein receptor-related protein 1 | 504244.8 | 4.599037 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AP1B1 | AP-1 complex subunit beta-1 | 104540.1 | 4.455162 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TWF1 | Twinfilin-1 | 42182.55 | 5.043373 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| EFEMP1 | EGF-containing fibulin-like extracellular matrix protein 1 | 54604.23 | 4.15139 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| BPTF | Nucleosome-remodeling factor subunit BPTF | 338053.6 | 5.329308 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| LMAN2 | Vesicular integral-membrane protein VIP36 | 40203.1 | 5.32621 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| EPS8 | Epidermal growth factor receptor kinase substrate 8 | 91824.42 | 5.564186 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| GOLGA4 | Golgin subfamily A member 4 | 260979.7 | 5.102974 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

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|------------|---|------------|----------|---|---|---|---|---|---|---|---|
| COTL1 | Coactosin-like protein | 15935.03 | 4.850365 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| LY6D | Lymphocyte antigen 6D | 13277.71 | 8.380806 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| SPARCL1 | SPARC-like protein 1 | 75169.2 | 4.510704 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| MESDC2 | Mesoderm development candidate 2 | 26060.3 | 5.50074 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| KRT72 | Keratin, type II cytoskeletal 72 | 55842.44 | 5.077766 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| PSMD6 | 26S proteasome non-ATPase regulatory subunit 6 | 45502.27 | 4.482719 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| | SDC4 | Syndecan-4 | 21628.03 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| PPA1 | Inorganic pyrophosphatase | 32639.15 | 4.746864 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PPP1R7 | Protein phosphatase 1 regulatory subunit 7 | 41538.53 | 4.680107 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SEC23A | Protein transport protein Sec23A | 86105.25 | 4.985588 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SURF1 | Surfeit locus protein 1 | 33310.39 | 9.64 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| GRK1 | Rhodopsin kinase | 63485.11 | 5.63 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SYPL1 | Synaptophysin-like protein 1 | 28546.7 | 8.69 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| PCK2 | Phosphoenolpyruvate carboxykinase [GTP], mitochondrial | 70591.61 | 5.966652 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TXNRD1 | Thioredoxin reductase 1, cytoplasmic | 70824.35 | 5.051277 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| IMMT | Mitochondrial inner membrane protein | 83626.35 | 6.08 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CSPP1 | Centr ome and spindle pole-associated protein 1 | 141663.6 | 6.26 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| TP53I3 | Putative quinone oxidoreductase | 35513.58 | 5.059181 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| ACTBL2 | Beta-actin-like protein 2 | 41975.97 | 5.39 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| HSP90AA4 P | Putative heat shock protein HSP 90-alpha A4 | 47682.12 | 4.628304 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| GNAS | Guanine nucleotide-binding protein G(s) subunit alpha isoforms XLas | 110955.5 | 4.91 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SNAP47 | Synaptosomal-associated protein 47 | 47268.46 | 6.081047 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MUC21 | Mucin-21 | 54168.4 | 4.8 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C10orf81 | PH domain-containing protein C10orf81 | 51806.53 | 5.55 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |

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|----------|---|--|----------|---|---|---|---|---|---|---|---|
| C9orf104 | Uncharacterized protein C9orf104 | 6583.58 | 10.35 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANXA8L1 | Annexin A8-like protein 1 | 36857.61 | 5.45 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| CROCC | Rootletin | 228387.6 | 5.45 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| BROX | BRO1 domain-containing protein BROX | 46446.65 | 4.9748 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| C1QL3 | Complement C1q-like protein 3 | 26702.18 | 4.416283 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| KRT40 | Keratin, type I cytoskeletal 40 | 48107.6 | 4.126289 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CYB5R2 | NADH-cytochrome b5 reductase 2 | 31438.37 | 5.450111 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TWF2 | Twinfilin-2 | 39523.27 | 5.257957 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| HIBCH | 3-hydroxyisobutyryl-CoA hydrolase, mitochondrial | 43454.4 | 6.155388 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TATDN1 | Putative deoxyribonuclease TATDN1 | 33579.93 | 5.622292 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| FAHD1 | Fumarylacetoacetate hydrolase domain-containing protein 1 | 24826.73 | 5.163216 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ATAD2 | ATPase family AAA domain-containing protein 2 | 158456.1 | 5.146446 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| MICALCL | MICAL C-terminal-like protein | 77520.97 | 8.64 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Uncharacterized protein LOC339524 | 28676.08 | 11.70297 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| HIST2H3A | Histone H3.2 | 15378.51 | 11.24709 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| SSH2 | Protein phosphatase Slingshot homolog 2 | 158116.5 | 4.9011 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| GDPD3 | Glycerophosphodiester phosphodiesterase domain-containing protein 3 | 29605.11 | 5.300362 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| GSTA5 | Glutathione S-transferase A5 | 25705.6 | 7.74 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3,2-trans-enoyl-CoA isomerase, mitochondrial | 32795.24 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | DCI | | | | | | | | | | |
| GALNT5 | Polypeptide N-acetylgalactosaminyltransferase 5 | 106199.4 | 9.150383 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

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|----------|---|----------|----------|---|---|---|---|---|---|---|---|
| RALYL | RNA-binding Raly-like protein | 32310.56 | 7.69 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ALPK2 | Alpha-protein kinase 2 | 210038.6 | 4.820671 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| KTN1 | Kinectin | 156179.3 | 5.272377 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| CD163 | Scavenger receptor cysteine-rich type 1 protein M130 | 125355.2 | 5.35537 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| DHX40 | Probable ATP-dependent RNA helicase DHX40 | 88503.75 | 7.261101 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| FAM186B | Protein FAM186B | 103656.6 | 6.78376 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TMEFF1 | Tomoregulin-1 | 40907.08 | 4.946709 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| ALDH16A1 | Aldehyde dehydrogenase family 16 member A1 | 85059.68 | 5.455452 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DOCK4 | Dedicator of cytokinesis protein 4 | 225004.9 | 7.69 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| | Elongation factor Tu, mitochondrial | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | TUFM | 49510.18 | | | | | | | | | |
| WDR31 | WD repeat-containing protein 31 | 40813.42 | 8.65 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| C17orf76 | Leucine-rich repeat-containing protein C17orf76 | 37756.66 | 6.37542 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| APOA1BP | Apolipoprotein A-I-binding protein | 31654.24 | 4.661308 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| BVES | Blood vessel epicardial substance | 41424.13 | 5.672493 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| MFSD8 | Major facilitator superfamily domain-containing protein 8 | 57590.17 | 6.41 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| ACTL7C | Actin-like protein 7C | 45538.47 | 5.221321 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| NT5C | 5'(3')-deoxyribonucleotidase, cytosolic type | 23368.07 | 5.532249 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| BICD2 | Protein bicaudal D homolog 2 | 93476.03 | 4.927696 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| DSCAML1 | Down syndrome cell adhesion molecule-like protein 1 | 224322.8 | 5.312325 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| ABCA5 | ATP-binding cassette sub-family A member 5 | 186386.8 | 4.797493 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| TTN | Titin | 3813810 | 6.01 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

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|----------|--|----------|----------|---|---|---|---|---|---|---|---|
| DDB2 | DNA damage-binding protein 2 | 47833.38 | 9.095695 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| FAM3C | Protein FAM3C | 24664.58 | 5.769478 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| NDRG1 | Protein NDRG1 | 42807.72 | 4.820457 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PXDN | Peroxidasin homolog | 165169.9 | 5.495079 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| KRT35 | Keratin, type I cuticular Ha5 | 50323.49 | 4.483147 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| GOLGA1 | Golgin subfamily A member 1 | 88146.15 | 5.11483 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| UFD1L | Ubiquitin fusion degradation protein 1 homolog | 34478.31 | 5.039314 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| USP7 | Ubiquitin carboxyl-terminal hydrolase 7 | 128220.3 | 4.682884 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| C19orf10 | UPF0556 protein C19orf10 | 18783.31 | 5.00428 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ISOC2 | Isochorismatase domain-containing protein 2, mitochondrial | 22322.84 | 6.413658 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TMIGD2 | Transmembrane and immunoglobulin domain-containing protein 2 | 30655.43 | 9.13 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FAM3D | Protein FAM3D | 24946.77 | 9.42 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EFHD2 | EF-hand domain-containing protein D2 | 26680.46 | 5.15 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| GALM | Aldose 1-epimerase | 37742.13 | 5.015388 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| INTS12 | Integrator complex subunit 12 | 48777.13 | 9.651543 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| S100A16 | Protein S100-A16 | 11793.97 | 6.28 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OTUB1 | Ubiquitin thioesterase OTUB1 | 31264.42 | 4.216972 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| DCUN1D1 | DCN1-like protein 1 | 30105.05 | 4.716743 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AKR1CL2 | Aldo-keto reductase family 1 member C-like protein 2 | 36551.65 | 6.89 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| TEKT5 | Tektin-5 | 56258.24 | 5.539619 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| PVRL4 | Poliovirus receptor-related protein 4 | 55419.78 | 4.819817 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| IPO9 | Importin-9 | 115888.7 | 4.397484 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| KRT12 | Keratin, type I cytoskeletal 12 | 53478.44 | 4.394814 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| CORO1B | Coronin-1B | 54200.25 | 4.973305 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TXNDC17 | Thioredoxin domain-containing protein 17 | 13931.8 | 4.6847 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CSTP1 | Uncharacterized metallophosphoesterase | 35553.88 | 4.994667 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

| | | | | | | | | | | | |
|----------|---|------------|----------|---|---|---|---|---|---|---|---|
| | CSTP1 | | | | | | | | | | |
| LXN | Latexin | 25733.89 | 4.622749 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| COPS4 | COP9 signalosome complex subunit 4 | 46239.67 | 4.697731 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| TMEM109 | Transmembrane protein 109 | 26193.58 | 10.48 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| CARD11 | Caspase recruitment domain-containing protein 11 | 133200.3 | 5.039207 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CAPS2 | Calcyphosin-2 | 63795.55 | 5.960457 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| MRPL13 | 39S ribosomal protein L13, mitochondrial | 20678.68 | 9.18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NLN | Neurolysin, mitochondrial | 80599.69 | 4.829857 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| PRSS22 | Brain-specific serine protease 4 | 33710.1 | 6.12249 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| WNT10A | Protein Wnt-10a | 46414.11 | 9.38 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C11orf54 | Ester hydrolase C11orf54 | 35094.61 | 5.189705 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| | SDC1 | Syndecan-1 | 32456.83 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| SH3BGRL3 | SH3 domain-binding glutamic acid-rich-like protein 3 | 10431.26 | 4.82 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| ACBD3 | Golgi resident protein GCP60 | 60555.98 | 5.02 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| PTPN23 | Tyrosine-protein phosphatase non-receptor type 23 | 178861 | 6.45 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| EPB41L1 | Band 4.1-like protein 1 | 98442.17 | 4.931969 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| PPP1R3E | Protein phosphatase 1 regulatory subunit 3E | 30624.96 | 11.16 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| EPB41L4A | Band 4.1-like protein 4A | 69332.01 | 6.593956 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| ISYNA1 | Inositol-3-phosphate synthase 1 | 61029.1 | 4.83947 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| SPINK5 | Serine protease inhibitor Kazal-type 5 | 120636.6 | 6.836525 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| NIT2 | Nitrilase homolog 2 | 30588.56 | 4.541786 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AASDHPPT | L-amino acid oxidase semialdehyde dehydrogenase-phosphopantetheinyl transferase | 35753.07 | 5.651344 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| HEBP1 | Heme-binding protein 1 | 21083.52 | 4.518608 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| KRT82 | Keratin, type II cuticular Hb2 | 56616.32 | 5.039848 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |

| | | | | | | | | | | | |
|-----------|---|----------|----------|---|---|---|---|---|---|---|---|
| MAN2C1 | Alpha-mannosidase 2C1 | 115761.5 | 5.343941 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SEPT11 | Septin-11 | 49367.19 | 6.36 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| POLR3E | DNA-directed RNA polymerase III subunit RPC5 | 79847.41 | 5.096779 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| ADPRHL2 | Poly(ADP-rib e) glycohydrolase ARH3 Low-density lipoprotein receptor-related | 38922.17 | 4.95 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| LRP1B | protein 1B | 515159.4 | 5.09 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| RRBP1 | Ribosome-binding protein 1 | 152380.7 | 8.126701 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |
| SAE1 | SUMO-activating enzyme subunit 1 | 38425.56 | 4.847374 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| MRC2 | C-type mannose receptor 2 | 166548.9 | 4.793221 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CPNE7 | Copine-7 | 70249.18 | 5.97 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| VPS29 | Vacuolar protein sorting-associated protein 29 | 20492.68 | 5.033974 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| GRHPR | Glyoxylate reductase/hydroxypyruvate reductase | 35645.74 | 5.925102 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 |
| FBLN5 | Fibulin-5 | 50146.67 | 3.601524 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| KLK11 | Kallikrein-11 | 31038.78 | 8.915184 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| SRP68 | Signal recognition particle 68 kDa protein | 70685.56 | 5.571236 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| STEAP1 | Metalloreductase STEAP1 | 39825.43 | 6.296486 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| PUF60 | Poly(U)-binding-splicing factor PUF60 | 59837.62 | 4.733727 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| C21orf104 | Putative uncharacterized C21orf104 protein | 16526.34 | 5.39222 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | Myristoy lated alanine- rich C- kinase substrate | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| | MARCKS | | 31535.86 | | | | | | | | |
| TMPRSS11 | | | | | | | | | | | |
| E | Transmembrane protease, serine 11E | 47665.08 | 8.85 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| DNPEP | Aspartyl aminopeptidase | 52394.92 | 6.175362 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| SLC7A7 | Y+L amino acid transporter 1 | 55954.25 | 3.889488 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 |

| | | | | | | | | | | | |
|---------|--|----------|----------|---|---|---|---|---|---|---|---|
| COL17A1 | Collagen alpha-1(XVII) chain | 150326.5 | 5.470726 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| PRPF19 | Pre-mRNA-processing factor 19 | 55146.34 | 5.345436 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| NDRG2 | Protein NDRG2 | 40772.18 | 5.08 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| RPH3AL | Rab effector Noc2 | 34442.33 | 8.886024 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| CLCA2 | Calcium-activated chloride channel regulator 2 | 103875.5 | 5.218758 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| NCKAP1 | Nck-associated protein 1 | 128706.5 | 6.18 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| GDA | Guanine deaminase | 50970.57 | 4.694527 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| LSM2 | U6 snRNA-associated Sm-like protein LSm2 | 10827.63 | 4.674446 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| CAB39 | Calcium-binding protein 39 | 39843.74 | 6.43 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| F11R | Junctional adhesion molecule A | 32562.49 | 4.812019 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| CLIC4 | Chloride intracellular channel protein 4 | 28753.74 | 4.823128 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
| AP1M2 | AP-1 complex subunit mu-2 | 48078.17 | 8.23 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| FCGBP | IgGFc-binding protein | 571638.8 | 4.395241 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |

Table S5. The list of proteins previously reported in the serum of head and neck cancer patients

| Protein name | Gene name | Swissprot AC | Specimen |
|---|-----------|--------------|---------------|
| Interleukin-8 | IL-8 | P10145 | saliva, serum |
| Interleukin-6 | IL-6 | P05231 | saliva, serum |
| Matrix metalloproteinase-2 | MMP-2 | P08253 | serum |
| Matrix metalloproteinase-3 | MMP-3 | P08254 | serum |
| Pro-epidermal growth factor | EGF | P01133 | serum |
| Alpha-fetoprotein | AFP | P02771 | serum |
| Keratin-19 | KRT19 | P08727 | serum |
| Galectin-3-binding protein | M2BP | Q08380 | saliva |
| Protein S100-A9 | S100A9 | P06702 | saliva |
| CD59 glycoprotein | CD59 | P13987 | saliva |
| Catalase | CAT | P04040 | saliva |
| Profilin-1 | PFN1 | P07737 | saliva |
| Matrix metalloproteinase-13 | MMP13 | P45452 | serum |
| Actin, alpha skeletal muscle | ACTA1 | P68133 | saliva |
| Myosin-1 | MYH1 | P12882 | saliva |
| Epidermal growth factor receptor | EGFR | A8K2T7 | serum |
| Signal transducer and activator of transcription 3 | STAT3 | P40763 | saliva |
| Thioredoxin-dependent peroxide reductase, mitochondrial | PRDX3 | P30048 | saliva |
| Serpin B3 | SERPINB3 | P29508 | saliva |
| Fibrinogen alpha chain | FGA | P02671 | plasma |
| Ig gamma-3 chain C region | IGHG3 | P01860 | plasma |
| Ig Kappa chain C region | IGKC | P01834 | plasma |
| Heat shock 70 kDa protein 1A/1B | HSPA1A | P08107 | serum |
| SICAM-1 | sICAM1 | Q99930 | serum |
| Serum amyloid A-1 protein | SAA1 | P0DJ18 | serum |

Reference

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- [3] T. M. Rezende, M. de Souza Freire, O. L. Franco, Head and neck cancer: proteomic advances and biomarker achievements. *Cancer* 116 (2010), 4914-4925.

Table S6. Forty-nine candidate biomarkers of laryngeal SCC in the “secretory/releasing” database

| Protein name | Gene name | Swissprot AC | Subcellular location |
|---|-----------|--------------|---|
| Serum albumin | ALB | P02768 | Secreted |
| Gelsolin | GSN | P06396 | Cytoplasm. Secreted |
| Protein disulfide-isomerase | P4HB | P07237 | Endoplasmic reticulum lumen. Melanosome. Cell membrane |
| Annexin A2 | ANXA2 | P07355 | Secreted. Melanosome |
| Thrombospondin-1 | THBS1 | P07996 | Secreted |
| Vinculin | VCL | P18206 | Cytoplasm. Cell junction. Cell membrane |
| Lumican | LUM | P51884 | Secreted |
| Transforming growth factor-beta-induced protein ig-h3 | TGFB1 | Q15582 | Secreted |
| Protein S100-A8 | S100A8 | P05109 | Secreted. Cytoplasm. Cell membrane |
| Plasminogen activator inhibitor 1 | SERPINE1 | P05121 | Secreted |
| Epithelial cadherin | CDH1 | P12830 | Cell junction. Cell membrane. Endosome. Golgi apparatus |
| Tenascin | TNC | P24821 | Secreted |
| Calreticulin | CALR | P27797 | Endoplasmic reticulum lumen. Cytoplasm. Secreted. Cell surface. |
| Metalloproteinase inhibitor 1 | TIMP1 | P01033 | Secreted |
| Matrix metalloproteinase-9 | MMP9 | P14780 | Secreted |
| Tenascin-X | TNXB | P22105 | Secreted |
| von Willebrand factor | VWF | P04275 | Secreted |
| Glutathione peroxidase 3 | GPX3 | P22352 | Secreted |
| Chitinase-3-like protein 1 | CHI3L1 | P36222 | Secreted |
| Transgelin-2 | TAGLN2 | P37802 | nuclear membrane. Plasma membrane |
| Polymeric immunoglobulin receptor | PIGR | P01833 | Cell membrane. Secreted |
| Interleukin-1 receptor antagonist protein | IL1RN | P18510 | Secreted. Cytoplasm |
| Antithrombin-III | SERPINC1 | P01008 | Secreted |
| Alpha-1-antichymotrypsin | SERPINA3 | P01011 | Secreted |
| Vitronectin | VTN | P04004 | Secreted |

| | | | |
|--|----------|--------|--|
| Plasma protease C1 inhibitor | SERPING1 | P05155 | Secreted |
| Collagen alpha-2(I) chain | COL1A2 | P08123 | Secreted |
| Leukocyte elastase | ELA2 | P08246 | Cell surface. Secreted |
| Monocyte differentiation antigen CD14 | CD14 | P08571 | Cell membrane |
| SPARC | SPARC | P09486 | Secreted |
| Thioredoxin | TXN | P10599 | Nucleus. Cytoplasm. Secreted |
| Tryptase alpha-1 | TPSAB1 | P15157 | Secreted |
| Metalloproteinase inhibitor 2 | TIMP2 | P16035 | Secreted |
| Pigment epithelium-derived factor | SERPINF1 | P36955 | Secreted |
| Kallikrein-6 | KLK6 | Q92876 | Secreted. Nucleus. Cytoplasm. Mitochondrion. Microsome |
| Insulin | INS | P01308 | Secreted |
| Beta-2-glycoprotein 1 | APOH | P02749 | Secreted |
| Alpha-2-HS-glycoprotein | AHSG | P02765 | Secreted |
| Alpha-1B-glycoprotein | A1BG | P04217 | Secreted |
| Amyloid beta A4 protein | APP | P05067 | Membrane |
| Trypsin-1 | PRSS1 | P07477 | Secreted |
| Clusterin | CLU | P10909 | Secreted |
| Versican core protein | VCAN | P13611 | Secreted |
| Inter-alpha-trypsin inhibitor heavy chain H2 | ITIH2 | P19823 | Secreted |
| Fibulin-1 | FBLN1 | P23142 | Secreted |
| Zinc-alpha-2-glycoprotein | AZGP1 | P25311 | Secreted |
| Thrombospondin-2 | THBS2 | P35442 | Secreted |
| Dermcidin | DCD | P81605 | Secreted |
| Procollagen C-endopeptidase enhancer 1 | PCOLCE | Q15113 | Secreted |

Table S7. The performance of KLK6 in distinguishing cancer cases from controls at selected cutoff points

| Application | Cutoff (ng/ml) | Sensitivity (%) | Specificity (%) | Early stage [*] (%) |
|-------------|-------------------|--------------------|--------------------|---------------------------------|
| C-H | 7.31 | 29.5 | 90.3 | 27.7 |
| C-B | 6.28 | 36.2 | 82.1 | 41.5 |
| C-NC | 6.34 | 35.6 | 82.2 | 40.0 |

^{*} comprised of cases with stage I and stage II.

C-H: distinguish cancer cases from healthy cases; C-B: distinguish cancer cases from benign cases; C-NC: distinguish cancer cases from non-cancer cases (including healthy cases and benign cases).