



**Supplementary Figure 1.** The relationship of the GO terms.  $C_j$  denotes one of the children of  $term_i$ .  $C_1$  is in different levels with  $C_2$ . Root denotes the node without parents and leaf denotes the node without children.

**Supplementary Table 1.** KS test results of FSim and AUC values of FSim and the compared methods.

KEGG pathway	FSim KS Test		AUC								
	P Value	Statistic Value	Fsim BP	Fsim MF	Fsim CC	Fsim ALL	Kappa (DAVID)	funSim MaxLin	funSimMax relevance	dot relevance	hausdorff relevance
hsa00232	3.56E-06	0.973	0.935	0.991	0.869	0.990	0.988	0.994	0.996	0.984	0.758
hsa00983	0.00E+00	0.775	0.937	0.914	0.787	0.952	0.923	0.931	0.927	0.945	0.635
hsa01100	0.00E+00	0.663	0.875	0.842	0.799	0.894	0.833	0.869	0.885	0.818	0.589
hsa00230	0.00E+00	0.748	0.884	0.940	0.692	0.942	0.872	0.889	0.902	0.931	0.733
hsa05340	1.81E-14	0.682	0.936	0.803	0.756	0.898	0.814	0.835	0.836	0.837	0.655
hsa04514	0.00E+00	0.811	0.927	0.822	0.927	0.965	0.854	0.907	0.917	0.861	0.617
hsa05412	0.00E+00	0.842	0.950	0.928	0.901	0.974	0.915	0.953	0.955	0.964	0.607
hsa04010	0.00E+00	0.588	0.788	0.708	0.738	0.863	0.696	0.824	0.823	0.852	0.631
hsa04012	0.00E+00	0.681	0.817	0.869	0.828	0.901	0.661	0.878	0.891	0.889	0.618
hsa04062	0.00E+00	0.712	0.859	0.862	0.750	0.926	0.671	0.866	0.861	0.894	0.578
hsa04150	0.00E+00	0.848	0.902	0.879	0.904	0.962	0.786	0.923	0.931	0.960	0.533
hsa04210	0.00E+00	0.665	0.843	0.861	0.767	0.895	0.729	0.854	0.866	0.898	0.631
hsa04370	0.00E+00	0.793	0.892	0.871	0.800	0.929	0.777	0.858	0.873	0.893	0.589
hsa04380	0.00E+00	0.588	0.812	0.809	0.735	0.851	0.656	0.814	0.822	0.856	0.631
hsa04510	0.00E+00	0.669	0.888	0.807	0.797	0.901	0.748	0.836	0.838	0.889	0.563
hsa04530	0.00E+00	0.785	0.838	0.837	0.896	0.936	0.883	0.915	0.913	0.903	0.623
hsa04620	0.00E+00	0.839	0.957	0.873	0.775	0.973	0.744	0.939	0.941	0.969	0.673
hsa04630	0.00E+00	0.671	0.848	0.888	0.746	0.905	0.645	0.882	0.883	0.892	0.555
hsa04660	0.00E+00	0.681	0.874	0.815	0.837	0.905	0.695	0.874	0.883	0.906	0.644
hsa04662	0.00E+00	0.738	0.829	0.819	0.868	0.910	0.713	0.897	0.901	0.862	0.690
hsa04664	0.00E+00	0.803	0.885	0.860	0.798	0.930	0.724	0.924	0.934	0.945	0.604
hsa04666	0.00E+00	0.677	0.842	0.876	0.840	0.913	0.824	0.904	0.907	0.857	0.622
hsa04722	0.00E+00	0.629	0.825	0.796	0.845	0.877	0.603	0.843	0.852	0.860	0.570
hsa04910	0.00E+00	0.732	0.909	0.813	0.838	0.909	0.808	0.857	0.867	0.891	0.631
hsa04914	0.00E+00	0.770	0.886	0.840	0.820	0.947	0.804	0.905	0.910	0.947	0.606
hsa04920	0.00E+00	0.618	0.834	0.847	0.783	0.852	0.698	0.850	0.856	0.876	0.608
hsa04973	0.00E+00	0.840	0.895	0.899	0.818	0.967	0.803	0.884	0.893	0.842	0.685
hsa05142	0.00E+00	0.656	0.809	0.875	0.793	0.898	0.587	0.852	0.852	0.943	0.589
hsa05145	0.00E+00	0.664	0.807	0.796	0.751	0.906	0.659	0.802	0.805	0.891	0.560
hsa05160	0.00E+00	0.749	0.852	0.818	0.768	0.941	0.795	0.843	0.867	0.923	0.675
hsa05200	0.00E+00	0.563	0.767	0.841	0.745	0.838	0.483	0.806	0.817	0.868	0.570
hsa05210	0.00E+00	0.709	0.766	0.880	0.867	0.911	0.525	0.880	0.897	0.942	0.636
hsa05211	0.00E+00	0.751	0.875	0.872	0.830	0.936	0.751	0.899	0.903	0.893	0.605
hsa05212	0.00E+00	0.682	0.818	0.901	0.837	0.912	0.589	0.862	0.878	0.929	0.531
hsa05213	0.00E+00	0.775	0.810	0.925	0.869	0.938	0.583	0.900	0.916	0.955	0.572
hsa05214	0.00E+00	0.607	0.829	0.828	0.835	0.876	0.626	0.816	0.824	0.845	0.654

hsa05215	0.00E+00	0.662	0.829	0.890	0.791	0.881	0.569	0.846	0.856	0.927	0.566
hsa05218	0.00E+00	0.816	0.896	0.912	0.772	0.961	0.687	0.923	0.929	0.944	0.704
hsa05220	0.00E+00	0.661	0.807	0.889	0.830	0.892	0.526	0.891	0.902	0.914	0.577
hsa05221	0.00E+00	0.742	0.866	0.904	0.842	0.920	0.632	0.882	0.889	0.922	0.625
hsa05222	0.00E+00	0.762	0.822	0.898	0.909	0.950	0.657	0.867	0.872	0.941	0.514
hsa05223	0.00E+00	0.760	0.851	0.909	0.885	0.938	0.703	0.920	0.928	0.933	0.559
hsa04146	0.00E+00	0.846	0.916	0.893	0.964	0.978	0.938	0.952	0.961	0.965	0.639
hsa00520	0.00E+00	0.806	0.931	0.925	0.760	0.953	0.807	0.934	0.944	0.914	0.765
hsa04974	0.00E+00	0.805	0.949	0.964	0.843	0.963	0.778	0.969	0.971	0.843	0.502
hsa04622	0.00E+00	0.830	0.953	0.823	0.730	0.964	0.802	0.920	0.921	0.914	0.787
hsa03013	0.00E+00	0.826	0.943	0.873	0.894	0.964	0.892	0.886	0.879	0.858	0.786
hsa04145	0.00E+00	0.718	0.904	0.834	0.830	0.920	0.830	0.828	0.839	0.833	0.664
hsa04612	0.00E+00	0.604	0.866	0.776	0.784	0.838	0.757	0.775	0.783	0.765	0.711
hsa04672	0.00E+00	0.813	0.939	0.856	0.850	0.963	0.829	0.904	0.912	0.910	0.623
hsa04940	0.00E+00	0.830	0.888	0.884	0.880	0.957	0.811	0.863	0.874	0.918	0.709
hsa05140	0.00E+00	0.745	0.907	0.870	0.750	0.936	0.728	0.869	0.871	0.920	0.747
hsa05150	0.00E+00	0.813	0.929	0.858	0.830	0.956	0.874	0.912	0.918	0.902	0.656
hsa05310	2.22E-16	0.783	0.944	0.906	0.849	0.932	0.778	0.909	0.918	0.913	0.671
hsa05320	0.00E+00	0.808	0.935	0.917	0.834	0.958	0.860	0.909	0.911	0.896	0.683
hsa05322	0.00E+00	0.793	0.937	0.858	0.851	0.957	0.858	0.677	0.684	0.699	0.535
hsa05323	0.00E+00	0.744	0.877	0.855	0.938	0.945	0.670	0.913	0.918	0.906	0.529
hsa05330	0.00E+00	0.838	0.966	0.904	0.868	0.972	0.854	0.891	0.901	0.924	0.839
hsa05332	0.00E+00	0.778	0.948	0.902	0.897	0.953	0.800	0.889	0.897	0.870	0.756
hsa05416	0.00E+00	0.732	0.828	0.830	0.878	0.933	0.861	0.817	0.827	0.906	0.710
hsa04640	0.00E+00	0.826	0.892	0.859	0.904	0.956	0.831	0.921	0.924	0.866	0.651
hsa00564	0.00E+00	0.800	0.955	0.978	0.668	0.954	0.899	0.924	0.936	0.947	0.692
hsa00565	0.00E+00	0.914	0.979	0.980	0.719	0.987	0.864	0.962	0.964	0.933	0.491
hsa00590	0.00E+00	0.839	0.932	0.970	0.793	0.971	0.860	0.958	0.958	0.925	0.508
hsa00591	0.00E+00	0.926	0.992	0.991	0.764	0.984	0.966	0.955	0.958	0.945	0.739
hsa00592	1.11E-16	0.991	0.994	0.996	0.717	0.999	0.959	0.948	0.949	0.930	0.767
hsa04270	0.00E+00	0.697	0.852	0.834	0.755	0.924	0.756	0.816	0.818	0.807	0.663
hsa04730	0.00E+00	0.748	0.870	0.870	0.733	0.928	0.816	0.834	0.851	0.881	0.722
hsa04912	0.00E+00	0.636	0.824	0.815	0.713	0.852	0.762	0.801	0.819	0.852	0.656
hsa04972	0.00E+00	0.729	0.839	0.887	0.760	0.940	0.685	0.916	0.919	0.808	0.656
hsa04975	0.00E+00	0.811	0.979	0.943	0.701	0.969	0.857	0.948	0.951	0.932	0.536
hsa04144	0.00E+00	0.679	0.844	0.765	0.780	0.916	0.780	0.803	0.799	0.861	0.703
hsa04310	0.00E+00	0.651	0.836	0.816	0.771	0.898	0.667	0.819	0.823	0.863	0.667
hsa00563	0.00E+00	0.959	0.999	0.935	0.967	0.995	0.974	0.996	0.996	1.000	0.940
hsa03008	0.00E+00	0.715	0.812	0.730	0.901	0.916	0.898	0.804	0.820	0.800	0.748
hsa04141	0.00E+00	0.745	0.883	0.763	0.796	0.938	0.846	0.819	0.825	0.814	0.709
hsa03420	0.00E+00	0.912	0.990	0.950	0.964	0.993	0.989	0.960	0.963	0.968	0.890
hsa04120	0.00E+00	0.795	0.894	0.929	0.757	0.955	0.888	0.886	0.903	0.898	0.628
hsa04670	0.00E+00	0.743	0.912	0.879	0.874	0.942	0.812	0.899	0.908	0.913	0.599

hsa03410	0.00E+00	0.955	0.989	0.996	0.924	0.996	0.979	0.959	0.960	0.953	0.749
hsa03010	0.00E+00	0.983	0.990	0.984	0.998	0.998	0.992	0.962	0.964	0.954	0.952
hsa04110	0.00E+00	0.786	0.946	0.826	0.904	0.953	0.861	0.916	0.924	0.928	0.802
hsa04114	0.00E+00	0.663	0.846	0.815	0.796	0.895	0.792	0.809	0.811	0.841	0.617
hsa04350	0.00E+00	0.710	0.916	0.883	0.791	0.930	0.741	0.872	0.871	0.867	0.668
hsa04710	2.00E-15	0.888	0.970	0.845	0.893	0.984	0.982	0.933	0.935	0.938	0.848
hsa05130	0.00E+00	0.709	0.854	0.868	0.896	0.913	0.818	0.862	0.865	0.862	0.712
hsa00140	0.00E+00	0.882	0.988	0.968	0.878	0.981	0.980	0.951	0.951	0.959	0.606
hsa04621	0.00E+00	0.738	0.934	0.851	0.765	0.936	0.758	0.890	0.895	0.899	0.640
hsa04142	0.00E+00	0.871	0.816	0.884	0.953	0.970	0.869	0.910	0.924	0.838	0.632
hsa00970	0.00E+00	0.965	0.983	0.981	0.904	0.990	0.988	0.642	0.643	0.644	0.677
hsa02010	0.00E+00	0.993	0.968	0.998	0.868	0.999	0.906	0.986	0.989	0.887	0.542
hsa05100	0.00E+00	0.798	0.863	0.926	0.879	0.950	0.814	0.913	0.914	0.878	0.602
hsa03320	0.00E+00	0.687	0.869	0.910	0.755	0.903	0.823	0.884	0.886	0.905	0.491
hsa00190	0.00E+00	0.964	0.973	0.974	0.963	0.993	0.996	0.877	0.878	0.875	0.801
hsa03040	0.00E+00	0.899	0.956	0.809	0.949	0.981	0.964	0.943	0.946	0.912	0.723
hsa00532	0.00E+00	0.979	0.927	0.978	0.986	0.997	0.993	0.993	0.994	0.995	0.855
hsa04810	0.00E+00	0.671	0.866	0.841	0.757	0.909	0.758	0.854	0.868	0.876	0.551
hsa05131	0.00E+00	0.713	0.896	0.870	0.851	0.913	0.818	0.889	0.890	0.885	0.613
hsa03440	0.00E+00	0.979	0.995	0.983	0.917	0.995	0.984	0.985	0.986	0.985	0.892
hsa03450	4.35E-11	0.973	0.995	0.988	0.900	0.996	0.994	0.922	0.923	0.923	0.819
hsa05016	0.00E+00	0.605	0.831	0.835	0.853	0.889	0.836	0.794	0.794	0.810	0.695
hsa00760	4.32E-14	0.811	0.913	0.954	0.797	0.961	0.889	0.955	0.949	0.928	0.778
hsa03018	0.00E+00	0.673	0.850	0.860	0.858	0.898	0.862	0.864	0.858	0.872	0.783
hsa04360	0.00E+00	0.734	0.872	0.727	0.712	0.912	0.865	0.878	0.880	0.876	0.648
hsa00300	4.97E-03	1.000	1.000	0.995	0.995	1.000	1.000	0.999	0.998	1.000	0.841
hsa00310	0.00E+00	0.908	0.927	0.978	0.921	0.989	0.938	0.958	0.958	0.950	0.751
hsa04080	0.00E+00	0.806	0.904	0.940	0.903	0.952	0.913	0.914	0.918	0.909	0.663
hsa04520	0.00E+00	0.773	0.897	0.902	0.873	0.947	0.780	0.877	0.888	0.938	0.609
hsa00533	7.58E-13	0.978	0.982	0.998	0.993	0.993	0.991	0.996	0.996	0.994	0.600
hsa04115	0.00E+00	0.689	0.896	0.778	0.793	0.894	0.743	0.827	0.832	0.847	0.623
hsa00830	0.00E+00	0.848	0.963	0.958	0.822	0.955	0.958	0.937	0.937	0.953	0.655
hsa03015	0.00E+00	0.705	0.819	0.897	0.823	0.920	0.839	0.880	0.875	0.841	0.669
hsa05219	0.00E+00	0.779	0.878	0.910	0.822	0.941	0.666	0.896	0.906	0.943	0.519
hsa00510	0.00E+00	0.981	0.995	0.969	0.931	0.998	0.994	0.992	0.993	0.999	0.889
hsa03050	0.00E+00	0.954	0.975	0.793	0.969	0.979	0.965	0.942	0.954	0.960	0.948
hsa05010	0.00E+00	0.587	0.838	0.852	0.831	0.882	0.811	0.760	0.776	0.840	0.679
hsa05120	0.00E+00	0.608	0.849	0.861	0.779	0.870	0.722	0.842	0.838	0.870	0.678
hsa00240	0.00E+00	0.762	0.941	0.924	0.778	0.955	0.916	0.913	0.922	0.919	0.828
hsa04130	0.00E+00	0.895	0.977	0.881	0.911	0.982	0.967	0.963	0.971	0.940	0.723
hsa00130	1.72E-06	0.999	1.000	0.985	0.931	1.000	0.997	0.995	0.994	0.999	0.708
hsa04976	0.00E+00	0.703	0.922	0.849	0.814	0.919	0.839	0.913	0.915	0.850	0.577
hsa05217	0.00E+00	0.877	0.971	0.976	0.904	0.984	0.724	0.939	0.947	0.988	0.789

hsa04623	0.00E+00	0.792	0.966	0.914	0.715	0.964	0.865	0.931	0.934	0.929	0.767
hsa04966	0.00E+00	0.913	0.991	0.977	0.915	0.993	0.993	0.993	0.994	0.992	0.904
hsa05110	0.00E+00	0.679	0.869	0.817	0.846	0.901	0.887	0.880	0.882	0.905	0.741
hsa00601	0.00E+00	0.989	0.992	0.997	0.993	0.997	0.995	0.997	0.997	0.998	0.916
hsa00603	5.27E-12	0.977	0.988	0.998	0.961	0.994	0.991	0.995	0.995	0.998	0.840
hsa04512	0.00E+00	0.847	0.921	0.887	0.942	0.972	0.865	0.940	0.950	0.937	0.593
hsa05146	0.00E+00	0.658	0.840	0.848	0.831	0.905	0.640	0.835	0.843	0.904	0.538
hsa00010	0.00E+00	0.902	0.991	0.945	0.830	0.990	0.926	0.958	0.960	0.979	0.709
hsa00561	0.00E+00	0.792	0.898	0.975	0.693	0.953	0.905	0.964	0.960	0.944	0.579
hsa05216	1.85E-12	0.693	0.858	0.852	0.844	0.907	0.802	0.850	0.848	0.857	0.745
hsa04060	0.00E+00	0.747	0.833	0.952	0.861	0.933	0.663	0.943	0.947	0.895	0.518
hsa00380	0.00E+00	0.875	0.923	0.938	0.869	0.970	0.928	0.939	0.943	0.949	0.678
hsa00270	0.00E+00	0.856	0.925	0.935	0.821	0.970	0.886	0.939	0.931	0.964	0.736
hsa00430	4.73E-08	0.938	0.944	0.997	0.825	0.994	0.982	0.960	0.964	0.993	0.749
hsa04260	0.00E+00	0.933	0.949	0.967	0.934	0.988	0.969	0.910	0.912	0.906	0.618
hsa05410	0.00E+00	0.773	0.924	0.895	0.905	0.952	0.868	0.920	0.931	0.945	0.732
hsa05414	0.00E+00	0.841	0.958	0.866	0.888	0.965	0.878	0.923	0.927	0.925	0.694
hsa04540	0.00E+00	0.657	0.932	0.800	0.863	0.913	0.858	0.869	0.878	0.915	0.660
hsa00920	8.85E-11	0.998	0.993	1.000	0.928	1.000	0.977	0.921	0.921	0.923	0.501
hsa04070	0.00E+00	0.826	0.909	0.955	0.746	0.965	0.876	0.902	0.911	0.897	0.695
hsa04720	0.00E+00	0.727	0.863	0.907	0.832	0.926	0.783	0.857	0.858	0.844	0.720
hsa00562	0.00E+00	0.884	0.892	0.972	0.774	0.971	0.848	0.898	0.912	0.941	0.722
hsa00062	2.96E-06	0.917	0.929	0.991	0.928	0.977	0.938	0.994	0.994	0.974	0.787
hsa00071	0.00E+00	0.918	0.971	0.972	0.922	0.985	0.976	0.975	0.975	0.983	0.693
hsa00280	0.00E+00	0.878	0.954	0.976	0.937	0.985	0.969	0.977	0.977	0.972	0.772
hsa04650	0.00E+00	0.629	0.854	0.776	0.735	0.886	0.716	0.843	0.854	0.812	0.626
hsa05014	0.00E+00	0.748	0.822	0.862	0.842	0.918	0.815	0.850	0.864	0.881	0.527
hsa05012	0.00E+00	0.758	0.874	0.896	0.909	0.916	0.891	0.787	0.787	0.791	0.730
hsa04916	0.00E+00	0.619	0.805	0.836	0.759	0.882	0.651	0.819	0.820	0.884	0.676
hsa04962	0.00E+00	0.782	0.850	0.834	0.793	0.952	0.835	0.897	0.910	0.842	0.635
hsa04140	0.00E+00	0.895	0.954	0.944	0.860	0.988	0.900	0.953	0.952	0.944	0.546
hsa03030	0.00E+00	0.920	0.982	0.943	0.949	0.974	0.990	0.971	0.975	0.963	0.882
hsa00600	0.00E+00	0.910	0.992	0.924	0.818	0.985	0.945	0.986	0.987	0.979	0.672
hsa00100	9.88E-14	0.899	0.995	0.959	0.891	0.984	0.949	0.984	0.986	0.964	0.740
hsa04977	2.49E-14	0.818	0.929	0.804	0.802	0.962	0.830	0.908	0.912	0.862	0.519
hsa00514	0.00E+00	0.887	0.922	0.969	0.886	0.978	0.959	0.946	0.956	0.940	0.701
hsa00450	3.90E-09	0.769	0.947	0.991	0.707	0.923	0.880	0.966	0.972	0.964	0.473
hsa00670	1.05E-13	0.950	0.968	0.995	0.915	0.992	0.963	0.938	0.938	0.929	0.778
hsa03020	0.00E+00	0.985	0.999	0.966	0.973	0.999	0.993	0.997	0.998	0.976	0.887
hsa03022	0.00E+00	0.949	0.974	0.936	0.957	0.974	0.976	0.913	0.917	0.918	0.834
hsa00900	3.42E-12	0.952	0.972	0.991	0.880	0.996	0.992	0.994	0.993	0.989	0.755
hsa04330	0.00E+00	0.734	0.927	0.861	0.772	0.924	0.837	0.868	0.867	0.898	0.681
hsa04020	0.00E+00	0.669	0.852	0.914	0.783	0.902	0.806	0.848	0.854	0.901	0.621

hsa04970	0.00E+00	0.551	0.798	0.820	0.731	0.785	0.682	0.682	0.683	0.673	0.620
hsa04971	0.00E+00	0.698	0.881	0.830	0.804	0.904	0.823	0.834	0.838	0.822	0.729
hsa03430	0.00E+00	0.972	0.996	0.992	0.964	0.998	0.993	0.990	0.991	0.998	0.864
hsa00040	6.11E-15	0.748	0.928	0.934	0.762	0.915	0.902	0.901	0.908	0.866	0.539
hsa00053	1.11E-16	0.873	0.924	0.962	0.870	0.966	0.974	0.951	0.950	0.938	0.570
hsa00500	0.00E+00	0.791	0.971	0.932	0.750	0.945	0.881	0.872	0.882	0.890	0.572
hsa00860	0.00E+00	0.781	0.885	0.928	0.851	0.948	0.926	0.937	0.935	0.939	0.691
hsa00980	0.00E+00	0.800	0.957	0.977	0.782	0.954	0.922	0.957	0.957	0.957	0.487
hsa00982	0.00E+00	0.839	0.946	0.972	0.799	0.970	0.952	0.964	0.963	0.962	0.799
hsa04610	0.00E+00	0.940	0.982	0.883	0.889	0.994	0.961	0.957	0.966	0.982	0.664
hsa04740	0.00E+00	0.929	0.392	0.982	0.962	0.981	0.278	0.931	0.942	0.523	0.323
hsa00511	3.90E-13	0.929	0.936	0.998	0.732	0.991	0.759	0.984	0.992	0.918	0.738
hsa00340	5.78E-11	0.648	0.881	0.957	0.666	0.828	0.650	0.798	0.817	0.735	0.590
hsa00531	2.22E-16	0.984	0.906	0.996	0.870	0.997	0.940	0.991	0.992	0.953	0.529
hsa00120	6.01E-14	0.988	0.999	0.956	0.927	0.998	0.995	0.981	0.985	1.000	0.689
hsa00620	0.00E+00	0.830	0.917	0.940	0.828	0.944	0.929	0.954	0.955	0.938	0.776
hsa03060	2.22E-16	0.893	0.939	0.976	0.947	0.988	0.962	0.964	0.977	0.969	0.844
hsa05020	1.10E-13	0.672	0.880	0.720	0.829	0.913	0.650	0.765	0.784	0.870	0.630
hsa01040	0.00E+00	0.991	0.995	0.975	0.932	0.998	0.995	0.993	0.992	0.995	0.859
hsa04964	1.16E-11	0.751	0.925	0.947	0.807	0.923	0.911	0.945	0.944	0.924	0.659
hsa00260	0.00E+00	0.872	0.959	0.974	0.854	0.977	0.951	0.956	0.955	0.980	0.682
hsa00785	5.91E-03	0.986	0.971	0.932	0.996	0.995	0.994	1.000	1.000	0.961	0.605
hsa04742	0.00E+00	0.904	0.970	0.935	0.781	0.981	0.687	0.955	0.956	0.861	0.538
hsa00512	0.00E+00	0.994	0.997	0.998	0.993	0.999	0.999	0.999	0.999	0.998	0.981
hsa00910	0.00E+00	0.931	0.928	0.973	0.735	0.989	0.789	0.979	0.978	0.951	0.705
hsa00330	0.00E+00	0.822	0.949	0.919	0.853	0.968	0.941	0.927	0.931	0.943	0.733
hsa00534	0.00E+00	0.896	0.882	0.984	0.900	0.970	0.936	0.986	0.989	0.974	0.765
hsa00350	0.00E+00	0.741	0.853	0.943	0.717	0.891	0.799	0.860	0.878	0.849	0.618
hsa00650	0.00E+00	0.943	0.966	0.982	0.923	0.991	0.969	0.972	0.976	0.973	0.689
hsa00480	0.00E+00	0.841	0.917	0.970	0.824	0.971	0.858	0.949	0.951	0.937	0.593
hsa04614	1.17E-13	0.948	0.992	0.985	0.821	0.990	0.921	0.981	0.980	0.942	0.584
hsa04340	0.00E+00	0.847	0.955	0.930	0.828	0.973	0.674	0.939	0.930	0.960	0.749
hsa00250	0.00E+00	0.868	0.938	0.946	0.871	0.972	0.881	0.933	0.931	0.931	0.713
hsa04930	0.00E+00	0.773	0.892	0.853	0.854	0.951	0.870	0.899	0.900	0.938	0.665
hsa00460	3.18E-05	0.889	0.981	0.997	0.843	0.984	0.975	0.991	0.990	0.996	0.857
hsa00630	6.09E-11	0.821	0.888	0.949	0.859	0.908	0.891	0.927	0.936	0.935	0.764
hsa04744	5.55E-16	0.816	0.918	0.928	0.738	0.970	0.808	0.833	0.851	0.834	0.781
hsa05144	0.00E+00	0.782	0.838	0.907	0.859	0.938	0.589	0.882	0.887	0.844	0.544
hsa00020	0.00E+00	0.952	0.995	0.962	0.947	0.997	0.995	0.990	0.989	0.998	0.789
hsa04320	1.15E-10	0.702	0.846	0.957	0.818	0.907	0.765	0.893	0.885	0.732	0.580
hsa00640	0.00E+00	0.930	0.940	0.951	0.890	0.986	0.966	0.978	0.978	0.967	0.785
hsa00472	2.70E-01	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
hsa00360	1.69E-10	0.827	0.931	0.981	0.788	0.970	0.867	0.952	0.956	0.958	0.511

hsa04950	1.44E-15	0.837	0.982	0.953	0.851	0.969	0.911	0.974	0.982	0.979	0.762
hsa05143	0.00E+00	0.855	0.815	0.924	0.902	0.956	0.620	0.873	0.874	0.898	0.631
hsa00790	8.03E-08	0.924	0.845	0.965	0.713	0.975	0.815	0.874	0.877	0.858	0.602
hsa00410	7.77E-16	0.900	0.919	0.967	0.820	0.951	0.902	0.931	0.933	0.932	0.682
hsa00770	6.70E-13	0.949	0.982	0.979	0.753	0.991	0.965	0.983	0.985	0.998	0.762
hsa00051	0.00E+00	0.876	0.896	0.947	0.853	0.982	0.858	0.945	0.942	0.897	0.709
hsa00061	1.68E-05	0.987	0.998	0.997	0.832	0.998	0.998	0.985	0.992	0.998	0.854
hsa00030	0.00E+00	0.902	0.975	0.986	0.790	0.986	0.940	0.935	0.942	0.935	0.777
hsa00052	0.00E+00	0.911	0.981	0.954	0.825	0.989	0.914	0.964	0.971	0.968	0.780
hsa04960	2.22E-16	0.664	0.880	0.870	0.790	0.891	0.877	0.875	0.871	0.909	0.728
hsa00290	2.94E-09	0.962	0.988	0.971	0.894	0.995	0.995	0.999	0.999	0.998	0.870
hsa00604	2.14E-12	0.960	0.947	0.986	0.988	0.992	0.987	0.991	0.992	0.995	0.823
hsa00400	1.26E-04	0.984	0.932	0.997	0.943	0.996	0.991	0.985	0.987	0.993	0.705
hsa00524	9.26E-05	0.999	0.999	1.000	0.955	1.000	0.999	1.000	1.000	0.993	0.851
hsa00730	2.23E-02	0.750	0.917	0.992	0.682	0.900	0.873	0.845	0.875	0.989	0.867
hsa00471	6.75E-04	1.000	1.000	0.987	0.974	1.000	1.000	1.000	1.000	1.000	0.822
hsa04122	3.09E-08	0.949	0.997	0.926	0.886	0.995	0.998	0.994	0.992	0.998	0.829
hsa00750	4.87E-04	0.833	0.911	0.997	0.699	0.961	0.855	0.888	0.908	0.966	0.703
hsa00780	3.67E-02	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	0.999
hsa00072	1.93E-07	0.948	0.978	0.995	0.886	0.993	0.985	0.994	0.989	0.996	0.832
hsa00740	1.23E-09	0.983	0.904	0.981	0.830	0.998	0.734	0.959	0.962	0.837	0.594