

Table S2. The mRNAsi subtype of HCC patients inTCGA database.

ID	group
TCGA.DD.A4NS.01A	Low_mRNAsi
TCGA.DD.A4NB.01A	Low_mRNAsi
TCGA.CC.A9FV.01A	Low_mRNAsi
TCGA.ED.A627.01A	Low_mRNAsi
TCGA.DD.A3A6.01A	Low_mRNAsi
TCGA.5R.AA1D.01A	Low_mRNAsi
TCGA.FV.A3R3.01A	Low_mRNAsi
TCGA.DD.A4ND.01A	Low_mRNAsi
TCGA.MR.A8JO.01A	Low_mRNAsi
TCGA.RC.A6M5.01A	Low_mRNAsi
TCGA.BC.A110.01A	Low_mRNAsi
TCGA.DD.AAD1.01A	Low_mRNAsi
TCGA.FV.A3I0.01A	Low_mRNAsi
TCGA.2Y.A9GX.01A	Low_mRNAsi
TCGA.ED.A97K.01A	Low_mRNAsi
TCGA.K7.AAU7.01A	Low_mRNAsi
TCGA.ED.A4XI.01A	Low_mRNAsi
TCGA.UB.AA0V.01A	Low_mRNAsi
TCGA.HP.A5MZ.01A	Low_mRNAsi
TCGA.G3.A7M6.01A	Low_mRNAsi
TCGA.DD.AAD3.01A	Low_mRNAsi
TCGA.DD.AAVW.01A	Low_mRNAsi
TCGA.2Y.A9H6.01A	Low_mRNAsi
TCGA.5R.AAAM.01A	Low_mRNAsi
TCGA.XR.A8TE.01A	Low_mRNAsi
TCGA.DD.A4NL.01A	Low_mRNAsi
TCGA.HP.A5N0.01A	Low_mRNAsi
TCGA.DD.A1ED.01A	Low_mRNAsi
TCGA.K7.A5RF.01A	Low_mRNAsi
TCGA.BC.A10X.01A	Low_mRNAsi
TCGA.NI.A8LF.01A	Low_mRNAsi
TCGA.BC.A10R.01A	Low_mRNAsi
TCGA.ED.A82E.01A	Low_mRNAsi
TCGA.DD.A4NV.01A	Low_mRNAsi
TCGA.GJ.A3OU.01A	Low_mRNAsi
TCGA.BD.A3EP.01A	Low_mRNAsi
TCGA.DD.AACN.01A	Low_mRNAsi
TCGA.KR.A7K0.01A	Low_mRNAsi
TCGA.DD.A4NA.01A	Low_mRNAsi
TCGA.2Y.A9GT.01A	Low_mRNAsi
TCGA.5C.A9VH.01A	Low_mRNAsi
TCGA.BC.A10Q.01A	Low_mRNAsi
TCGA.ZS.A9CG.01A	Low_mRNAsi
TCGA.2Y.A9H5.01A	Low_mRNAsi
TCGA.DD.A4NI.01A	Low_mRNAsi
TCGA.CC.5260.01A	Low_mRNAsi
TCGA.YA.A8S7.01A	Low_mRNAsi
TCGA.ZP.A9CY.01A	Low_mRNAsi
TCGA.G3.A25V.01A	Low_mRNAsi
TCGA.BC.A10S.01A	Low_mRNAsi
TCGA.DD.AADA.01A	Low_mRNAsi
TCGA.2Y.A9GV.01A	Low_mRNAsi
TCGA.DD.AAE7.01A	Low_mRNAsi
TCGA.DD.A1EI.01A	Low_mRNAsi
TCGA.ZP.A9D1.01A	Low_mRNAsi
TCGA.DD.A3A9.01A	Low_mRNAsi
TCGA.G3.A3CI.01A	Low_mRNAsi
TCGA.DD.AAD2.01A	Low_mRNAsi
TCGA.DD.AAVR.01A	Low_mRNAsi

TCGA.BC.A69I.01A	Low_mRNAsi
TCGA.FV.A2QR.01A	Low_mRNAsi
TCGA.ED.A5KG.01A	Low_mRNAsi
TCGA.DD.AAW0.01A	Low_mRNAsi
TCGA.CC.5261.01A	Low_mRNAsi
TCGA.CC.A3MA.01A	Low_mRNAsi
TCGA.ZP.A9D2.01A	Low_mRNAsi
TCGA.DD.AAEK.01A	Low_mRNAsi
TCGA.2Y.A9GW.01A	Low_mRNAsi
TCGA.ZS.A9CD.01A	Low_mRNAsi
TCGA.DD.A4NF.01A	Low_mRNAsi
TCGA.DD.AAVV.01A	Low_mRNAsi
TCGA.DD.A4NP.01A	Low_mRNAsi
TCGA.DD.A11D.01A	Low_mRNAsi
TCGA.GJ.A9DB.01A	Low_mRNAsi
TCGA.CC.A7IH.01A	Low_mRNAsi
TCGA.PD.A5DF.01A	Low_mRNAsi
TCGA.WX.AA46.01A	Low_mRNAsi
TCGA.G3.A25T.01A	Low_mRNAsi
TCGA.KR.A7K2.01A	Low_mRNAsi
TCGA.G3.A25Y.01A	Low_mRNAsi
TCGA.DD.AAC9.01A	Low_mRNAsi
TCGA.G3.A5SK.01A	Low_mRNAsi
TCGA.G3.A7M8.01A	Low_mRNAsi
TCGA.BC.4072.01B	Low_mRNAsi
TCGA.XR.A8TG.01A	Low_mRNAsi
TCGA.UB.A7MD.01A	Low_mRNAsi
TCGA.G3.A5SJ.01A	Low_mRNAsi
TCGA.XR.A8TD.01A	Low_mRNAsi
TCGA.DD.AADW.01A	Low_mRNAsi
TCGA.G3.A5SM.01A	Low_mRNAsi
TCGA.DD.AADK.01A	Low_mRNAsi
TCGA.MI.A75E.01A	Low_mRNAsi
TCGA.DD.A4NO.01A	Low_mRNAsi
TCGA.UB.AA0U.01A	Low_mRNAsi
TCGA.G3.AAV2.01A	Low_mRNAsi
TCGA.CC.A7IJ.01A	Low_mRNAsi
TCGA.2Y.A9H3.01A	Low_mRNAsi
TCGA.DD.A4NH.01A	Low_mRNAsi
TCGA.UB.A7MA.01A	Low_mRNAsi
TCGA.ED.A66X.01A	Low_mRNAsi
TCGA.WX.AA44.01A	Low_mRNAsi
TCGA.DD.AACT.01A	Low_mRNAsi
TCGA.NI.A4U2.01A	Low_mRNAsi
TCGA.ED.A7PX.01A	Low_mRNAsi
TCGA.DD.AAW1.01A	Low_mRNAsi
TCGA.LG.A9QC.01A	Low_mRNAsi
TCGA.DD.A73E.01A	Low_mRNAsi
TCGA.DD.AADI.01A	Low_mRNAsi
TCGA.ED.A7XP.01A	Low_mRNAsi
TCGA.EP.A2KC.01A	Low_mRNAsi
TCGA.LG.A9QD.01A	Low_mRNAsi
TCGA.DD.A3A8.01A	Low_mRNAsi
TCGA.DD.AAE3.01A	Low_mRNAsi
TCGA.DD.A73C.01A	Low_mRNAsi
TCGA.CC.5262.01A	Low_mRNAsi
TCGA.KR.A7K8.01A	Low_mRNAsi
TCGA.ED.A66Y.01A	Low_mRNAsi
TCGA.K7.A6G5.01A	Low_mRNAsi
TCGA.G3.AAV3.01A	Low_mRNAsi
TCGA.DD.AACU.01A	Low_mRNAsi

TCGA.DD.A1EK.01A	Low_mRNAsi
TCGA.CC.A5UD.01A	Low_mRNAsi
TCGA.BC.A10T.01A	Low_mRNAsi
TCGA.DD.A4NG.01A	Low_mRNAsi
TCGA.MR.A520.01A	Low_mRNAsi
TCGA.O8.A75V.01A	Low_mRNAsi
TCGA.DD.A114.01A	Low_mRNAsi
TCGA.DD.A39W.01A	Low_mRNAsi
TCGA.RC.A7SF.01A	Low_mRNAsi
TCGA.G3.A5SL.01A	Low_mRNAsi
TCGA.ED.A8O5.01A	Low_mRNAsi
TCGA.WQ.AB4B.01A	Low_mRNAsi
TCGA.DD.A1EH.01A	Low_mRNAsi
TCGA.DD.AADP.01A	Low_mRNAsi
TCGA.DD.A4NK.01A	Low_mRNAsi
TCGA.DD.AACA.01A	Low_mRNAsi
TCGA.GJ.A6C0.01A	Low_mRNAsi
TCGA.DD.AAEB.01A	Low_mRNAsi
TCGA.G3.A25X.01A	Low_mRNAsi
TCGA.DD.AACE.01A	Low_mRNAsi
TCGA.DD.AAC8.01A	Low_mRNAsi
TCGA.UB.A7ME.01A	Low_mRNAsi
TCGA.ZP.A9CV.01A	Low_mRNAsi
TCGA.DD.AADG.01A	Low_mRNAsi
TCGA.ES.A2HS.01A	Low_mRNAsi
TCGA.FV.A3I1.01A	Low_mRNAsi
TCGA.ZP.A9D0.01A	Low_mRNAsi
TCGA.G3.A3CH.01A	Low_mRNAsi
TCGA.2Y.A9H2.01A	Low_mRNAsi
TCGA.DD.A1EB.01A	Low_mRNAsi
TCGA.FV.A23B.01A	Low_mRNAsi
TCGA.G3.AAV0.01A	Low_mRNAsi
TCGA.DD.AAVP.01A	Low_mRNAsi
TCGA.LG.A6GG.01A	Low_mRNAsi
TCGA.DD.A118.01A	Low_mRNAsi
TCGA.DD.A1EF.01A	Low_mRNAsi
TCGA.DD.AACY.01A	Low_mRNAsi
TCGA.FV.A496.01A	Low_mRNAsi
TCGA.2Y.A9GU.01A	Low_mRNAsi
TCGA.DD.AAVS.01A	Low_mRNAsi
TCGA.DD.A115.01A	Low_mRNAsi
TCGA.DD.AAVQ.01A	Low_mRNAsi
TCGA.DD.AA3A.01A	Low_mRNAsi
TCGA.ED.A7XO.01A	Low_mRNAsi
TCGA.EP.A26S.01A	Low_mRNAsi
TCGA.EP.A12J.01A	Low_mRNAsi
TCGA.BC.4073.01B	Low_mRNAsi
TCGA.MI.A75H.01A	Low_mRNAsi
TCGA.DD.A3A2.01A	Low_mRNAsi
TCGA.2Y.A9HB.01A	Low_mRNAsi
TCGA.DD.AAW2.01A	Low_mRNAsi
TCGA.DD.A1EC.01A	Low_mRNAsi
TCGA.DD.AADU.01A	Low_mRNAsi
TCGA.DD.A4NN.01A	Low_mRNAsi
TCGA.DD.A11B.01A	Low_mRNAsi
TCGA.FV.A495.01A	Low_mRNAsi
TCGA.BC.A10U.01A	Low_mRNAsi
TCGA.DD.AACC.01A	Low_mRNAsi
TCGA.CC.A9FW.01A	Low_mRNAsi
TCGA.EP.A2KB.01A	Low_mRNAsi
TCGA.DD.AADV.01A	Low_mRNAsi

TCGA.DD.AAVX.01A	Low_mRNAsi
TCGA.RC.A7SB.01A	Low_mRNAsi
TCGA.DD.A116.01A	Low_mRNAsi
TCGA.WJ.A86L.01A	Low_mRNAsi
TCGA.ED.A7PY.01A	Low_mRNAsi
TCGA.DD.A11C.01A	Low_mRNAsi
TCGA.DD.A73A.01A	High_mRNAsi
TCGA.ES.A2HT.01A	High_mRNAsi
TCGA.DD.AAE2.01A	High_mRNAsi
TCGA.G3.A7M7.01A	High_mRNAsi
TCGA.DD.A4NE.01A	High_mRNAsi
TCGA.G3.AAV1.01A	High_mRNAsi
TCGA.DD.A4NJ.01A	High_mRNAsi
TCGA.DD.AADJ.01A	High_mRNAsi
TCGA.RC.A7SK.01A	High_mRNAsi
TCGA.G3.A3CK.01A	High_mRNAsi
TCGA.2Y.A9H9.01A	High_mRNAsi
TCGA.CC.A3M9.01A	High_mRNAsi
TCGA.DD.AACH.01A	High_mRNAsi
TCGA.G3.AAV4.01A	High_mRNAsi
TCGA.DD.AAE0.01A	High_mRNAsi
TCGA.DD.A119.01A	High_mRNAsi
TCGA.CC.A8HV.01A	High_mRNAsi
TCGA.DD.AAEH.01A	High_mRNAsi
TCGA.DD.AAW3.01A	High_mRNAsi
TCGA.G3.A25Z.01A	High_mRNAsi
TCGA.ZS.A9CF.01A	High_mRNAsi
TCGA.4R.AA8I.01A	High_mRNAsi
TCGA.EP.A3JL.01A	High_mRNAsi
TCGA.ZP.A9D4.01A	High_mRNAsi
TCGA.DD.AADY.01A	High_mRNAsi
TCGA.G3.A3CJ.01A	High_mRNAsi
TCGA.MI.A75G.01A	High_mRNAsi
TCGA.DD.AAE9.01A	High_mRNAsi
TCGA.CC.A1HT.01A	High_mRNAsi
TCGA.2Y.A9GZ.01A	High_mRNAsi
TCGA.G3.A6UC.01A	High_mRNAsi
TCGA.DD.AACI.01A	High_mRNAsi
TCGA.DD.AAEG.01A	High_mRNAsi
TCGA.K7.A5RG.01A	High_mRNAsi
TCGA.DD.A1EG.01A	High_mRNAsi
TCGA.CC.A7IF.01A	High_mRNAsi
TCGA.DD.AAEE.01A	High_mRNAsi
TCGA.FV.A2QQ.01A	High_mRNAsi
TCGA.BC.A112.01A	High_mRNAsi
TCGA.2V.A95S.01A	High_mRNAsi
TCGA.G3.AAV6.01A	High_mRNAsi
TCGA.BC.A3KF.01A	High_mRNAsi
TCGA.DD.A4NR.01A	High_mRNAsi
TCGA.ED.A8O6.01A	High_mRNAsi
TCGA.DD.AAVZ.01A	High_mRNAsi
TCGA.CC.A3MC.01A	High_mRNAsi
TCGA.DD.A113.01A	High_mRNAsi
TCGA.EP.A2KA.01A	High_mRNAsi
TCGA.DD.A3A5.01A	High_mRNAsi
TCGA.DD.AACQ.01A	High_mRNAsi
TCGA.RC.A7SH.01A	High_mRNAsi
TCGA.CC.A3MB.01A	High_mRNAsi
TCGA.DD.A1EE.01A	High_mRNAsi
TCGA.G3.AAV7.01A	High_mRNAsi
TCGA.DD.AAD8.01A	High_mRNAsi

TCGA.2Y.A9HA.01A	High_mRNAsi
TCGA.XR.A8TC.01A	High_mRNAsi
TCGA.DD.AAE1.01A	High_mRNAsi
TCGA.CC.5263.01A	High_mRNAsi
TCGA.DD.A39V.01A	High_mRNAsi
TCGA.G3.AAUZ.01A	High_mRNAsi
TCGA.DD.AACK.01A	High_mRNAsi
TCGA.CC.A8HS.01A	High_mRNAsi
TCGA.2Y.A9H7.01A	High_mRNAsi
TCGA.DD.AAD0.01A	High_mRNAsi
TCGA.DD.AAD5.01A	High_mRNAsi
TCGA.DD.AACB.01A	High_mRNAsi
TCGA.DD.A73G.01A	High_mRNAsi
TCGA.BC.A216.01A	High_mRNAsi
TCGA.EP.A3RK.01A	High_mRNAsi
TCGA.CC.A7IE.01A	High_mRNAsi
TCGA.DD.A1EA.01A	High_mRNAsi
TCGA.CC.5259.01A	High_mRNAsi
TCGA.DD.AADL.01A	High_mRNAsi
TCGA.ED.A459.01A	High_mRNAsi
TCGA.5C.AAPD.01A	High_mRNAsi
TCGA.DD.AAED.01A	High_mRNAsi
TCGA.DD.A39X.01A	High_mRNAsi
TCGA.RC.A6M6.01A	High_mRNAsi
TCGA.ZS.A9CE.01A	High_mRNAsi
TCGA.DD.A1EJ.01A	High_mRNAsi
TCGA.DD.AAVY.01A	High_mRNAsi
TCGA.3K.AAZ8.01A	High_mRNAsi
TCGA.5C.A9VG.01A	High_mRNAsi
TCGA.CC.A9FS.01A	High_mRNAsi
TCGA.BD.A2L6.01A	High_mRNAsi
TCGA.CC.A7IG.01A	High_mRNAsi
TCGA.5R.AA1C.01A	High_mRNAsi
TCGA.DD.AACS.01A	High_mRNAsi
TCGA.WX.AA47.01A	High_mRNAsi
TCGA.BW.A5NP.01A	High_mRNAsi
TCGA.MI.A75I.01A	High_mRNAsi
TCGA.DD.A4NQ.01A	High_mRNAsi
TCGA.BW.A5NO.01A	High_mRNAsi
TCGA.DD.A11A.01A	High_mRNAsi
TCGA.RC.A6M4.01A	High_mRNAsi
TCGA.CC.A5UC.01A	High_mRNAsi
TCGA.DD.A3A4.01A	High_mRNAsi
TCGA.CC.A7IK.01A	High_mRNAsi
TCGA.2Y.A9H1.01A	High_mRNAsi
TCGA.DD.A73F.01A	High_mRNAsi
TCGA.ZP.A9CZ.01A	High_mRNAsi
TCGA.UB.A7MC.01A	High_mRNAsi
TCGA.UB.A7MF.01A	High_mRNAsi
TCGA.WQ.A9G7.01A	High_mRNAsi
TCGA.FV.A3R2.01A	High_mRNAsi
TCGA.DD.AACD.01A	High_mRNAsi
TCGA.2Y.A9H8.01A	High_mRNAsi
TCGA.DD.A39Z.01A	High_mRNAsi
TCGA.DD.AADB.01A	High_mRNAsi
TCGA.DD.AACX.01A	High_mRNAsi
TCGA.RC.A7S9.01A	High_mRNAsi
TCGA.DD.AADS.01A	High_mRNAsi
TCGA.DD.AACO.01A	High_mRNAsi
TCGA.ED.A7PZ.01A	High_mRNAsi
TCGA.DD.AACW.01A	High_mRNAsi

TCGA.DD.AAEA.01A	High_mRNAsi
TCGA.BC.A5W4.01A	High_mRNAsi
TCGA.DD.AADC.01A	High_mRNAsi
TCGA.DD.AAE4.01A	High_mRNAsi
TCGA.2Y.A9GS.01A	High_mRNAsi
TCGA.DD.A3A3.01A	High_mRNAsi
TCGA.DD.AADM.01A	High_mRNAsi
TCGA.CC.5258.01A	High_mRNAsi
TCGA.2Y.A9H4.01A	High_mRNAsi
TCGA.G3.A7M5.01A	High_mRNAsi
TCGA.DD.AADQ.01A	High_mRNAsi
TCGA.XR.A8TF.01A	High_mRNAsi
TCGA.BC.A8YO.01A	High_mRNAsi
TCGA.DD.A3A7.01A	High_mRNAsi
TCGA.UB.A7MB.01A	High_mRNAsi
TCGA.DD.A3A1.01A	High_mRNAsi
TCGA.ML.A75C.01A	High_mRNAsi
TCGA.CC.A8HU.01A	High_mRNAsi
TCGA.BC.A3KG.01A	High_mRNAsi
TCGA.CC.5264.01A	High_mRNAsi
TCGA.DD.AACJ.01A	High_mRNAsi
TCGA.DD.AACZ.01A	High_mRNAsi
TCGA.G3.AAV5.01A	High_mRNAsi
TCGA.CC.A123.01A	High_mRNAsi
TCGA.DD.A1EL.01A	High_mRNAsi
TCGA.BC.A10W.01A	High_mRNAsi
TCGA.DD.AACF.01A	High_mRNAsi
TCGA.CC.A7IL.01A	High_mRNAsi
TCGA.BC.A69H.01A	High_mRNAsi
TCGA.BC.A10Y.01A	High_mRNAsi
TCGA.DD.AAEI.01A	High_mRNAsi
TCGA.FV.A4ZQ.01A	High_mRNAsi
TCGA.DD.A73D.01A	High_mRNAsi
TCGA.DD.A73B.01A	High_mRNAsi
TCGA.G3.A5SI.01A	High_mRNAsi
TCGA.G3.A7M9.01A	High_mRNAsi
TCGA.BC.A10Z.01A	High_mRNAsi
TCGA.G3.A25U.01A	High_mRNAsi
TCGA.2Y.A9GY.01A	High_mRNAsi
TCGA.CC.A5UE.01A	High_mRNAsi
TCGA.DD.AADO.01A	High_mRNAsi
TCGA.BC.A217.01A	High_mRNAsi
TCGA.CC.A9FU.01A	High_mRNAsi
TCGA.DD.AACP.01A	High_mRNAsi
TCGA.DD.AACL.01A	High_mRNAsi
TCGA.FV.A4ZP.01A	High_mRNAsi
TCGA.DD.AADF.01A	High_mRNAsi
TCGA.KR.A7K7.01A	High_mRNAsi
TCGA.RC.A6M3.01A	High_mRNAsi
TCGA.DD.AADD.01A	High_mRNAsi
TCGA.DD.AAD6.01A	High_mRNAsi
TCGA.DD.AAVU.01A	High_mRNAsi
TCGA.QA.A7B7.01A	High_mRNAsi
TCGA.DD.A39Y.01A	High_mRNAsi
TCGA.RG.A7D4.01A	High_mRNAsi
TCGA.DD.AADR.01A	High_mRNAsi
TCGA.DD.AACV.01A	High_mRNAsi
TCGA.G3.A25S.01A	High_mRNAsi
TCGA.CC.A8HT.01A	High_mRNAsi
TCGA.2Y.A9H0.01A	High_mRNAsi
TCGA.DD.AAE6.01A	High_mRNAsi

TCGA.CC.A7II.01A	High_mRNAsi
TCGA.DD.AACG.01A	High_mRNAsi
TCGA.BW.A5NQ.01A	High_mRNAsi
TCGA.DD.AADN.01A	High_mRNAsi