

Table S10. Mutations of *UGT* genes found in both TCGA tumors and CCLE cell lines

UGT genes	Mutations	TCGA tumors	CCLE
1A1	c.676G>A (Val226Ile)	SKCM-Metastatic	Colorectal cancer (LS180)
1A4	c.517dupT (Trp173LeufsTer7)	STAD, UCEC	Colorectal cancer (CW2, SW48)
1A5	c.850G>A (Gly284Arg)	UCEC	Endometrial cancer (HEC151)
	c.725_726dupAG (Val243ArgfsTer21)	ARC	Endometrial cancer (HEC265)
1A6	c.29G>T (Arg10Ile)	HNSC	Colorectal cancer (SNU81)
	c.616del (Ser206ProfsTer38)	STAD	Mixed cancer types (RHJT)
	c.831C>G (Ile277Met)	STAD	Glioma (LN428)
1A7	c.8G>A (Arg3His)	UCS	Colorectal cancer (SNU407)
	c.364delT (Ser122GlnfsTer12)	COAD, STAD	Colorectal cancer (KM12); Hodgkin Lymphoma (SUPHD1)
	c.761G>A (Arg254Gln)	COAD, SKCM primary	Cancer of unknown primary (HCC2998)
	c.760C>T (Arg254Ter)	OV	Small cell lung cancer (NCIH446)
	c.577C>A (Leu193Ile)	LUAD	Renal cell carcinoma (SNU1272); Mature B-cell neoplasms (KMS26); Esophagogastric cancer (SNU1)
	c.719C>T (Thr240Met)	ESCA, LUSC, PRAD	Non-small cell lung cancer (NCIH1355); Cancer of unknown primary (NCIH1688)
1A8	c.200G>A (Gly67Glu)	SKCM-metastatic	Non-small cell lung cancer (NCIH2405)
	c.308G>A (Arg103Gln)	HNSC	T-Lymphoblastic Leukemia/Lymphoma (RPMI8402)
	c.391C>T (Arg131Ter)	LUSC, STAD	Endometrial cancer (HEC1A); Cancer of unknown primary (HEC1)
	c.677delA (Asn226MetfsTer3)	UCEC	Endometrial cancer (SNGM)
1A9	c.364delT (Ser122GlnfsTer12)	UCEC	T-Lymphoblastic Leukemia/Lymphoma (MOLT4, JURKAT)
	c.442G>A (Asp148Asn)	COAD, SKCM-metastatic	Endometrial cancer (JHUEM1)
	c.685G>A (Glu229Lys)	GBM	Melanoma (WM983B)
1A10	c.511G>A (Gly171Arg)	SKCM-metastatic	Melanoma (CHL1)
1A E2-5	c.1566delA (Arg524GluTer22)	BRCA, COAD, STAD	Endometrial cancer (RL952, HEC59); T-Lymphoblastic Leukemia/Lymphoma (MOLT4, MOLT3)
			Colorectal cancer (SNU1040)
2A2	c.362G>A (Gly121Glu)	LIHC, SKCM (Primary, Metastatic)	Melanoma (CP66MEL)
	c.557C>T (Ser186Leu)	SKCM-metastatic	Bladder cancer (5637)
2A E2-6	c.845C>A (Pro282His)	KIRP	Non-small cell lung cancer (HCC827)
2A3	c.342delT (Phe114LeufsTer4)	CESC, COAD, STAD	Colorectal cancer (CW2, SNU407); Cancer of unknown primary (DG75)
	c.890C>T (Ser297Leu)	SKCM-metastatic	Cancer of unknown primary (TGW)
	c.1195G>A (Asp399Asn)	SKCM-metastatic	Mature B-cell neoplasms (HUNS1)
	c.1448G>T (Trp483Leu)	KIRC	Cancer of unknown primary (LAN6)
	c.1532dupT (Leu511PhefsTer8)	THYM	Endometrial cancer (EN)
2B4	c.133G>A (Glu45Lys)	LUAD, SKCM (Primary, Metastatic)	Melanoma (IPC298)
	c.340G>T (Glu114Ter)	UCEC	Endometrial cancer (JHUEM7)
	c.541G>A (Glu181Lys)	SKCM-metastatic	Melanoma (IGR39, IGR37)
	c.638delA (Asn213IlefsTer2)	STAD	Colorectal cancer (CW2)
	c.1160G>A (Gly387Glu)	SKCM-metastatic	Cancer of unknown primary (MCC13)
	c.1306C>T (Pro436Ser)	SKCM-metastatic	Melanoma (COLO792)
	c.1340G>T (Arg447Ile)	UCEC	Endometrial cancer (ESS1)

2B7	c.1405C>T (Arg469Cys) c.1558A>G (Arg520Gly) c.1096C>A (Pro366Thr) c.1192G>A (Asp398Asn) c.1340G>T (Arg447Ile) c.1375C>T (Arg459Ter) c.1444G>A (Asp482Asn)	LGG LUSC PRAD LGG UCEC KICH SKCM-primary	T-Lymphoblastic Leukemia/Lymphoma (MOLT16) Blood cancer (KCL22) Cancer of unknown primary (BB49HNC)
2B10	c.104G>A (Trp35Ter) c.184C>A (Leu62Ile) c.635delA (Asn212IlefsTer17) c.1003C>A (Leu335Ile) c.1300G>A (Asp434Asn) c.1403G>A (Arg468His) c.1412G>A (Gly471Glu) c.1565G>A (Gly522Glu)	SKCM-metastatic OV STAD BRCA SKCM-metastatic HNSC SKCM-metastatic SKCM-metastatic	Colorectal cancer (RCM1); Blood cancer (KCL22) Cancer of unknown primary (JEG3) Colorectal cancer (HCT116) Endometrial cancer (JHUEM7) Cancer of unknown primary (HCC515) Melanoma (COLO679, C32); Small cell lung cancer (NCIH2081) Colorectal cancer (LS411N, SW48) Endometrial cancer (ESS1) Cancer of unknown primary (NCIH1688) Cancer of unknown primary (HELA) Mixed cancer types (MM370)
2B11	c.71G>A (Gly24Glu) c.500G>A (Arg167Gln) c.923C>A (Ser308Tyr) c.932C>T (Ser311Leu) c.1270G>T (Asp424Tyr) c.1306C>T (Pro436Ser) c.1567G>T (Gly523Trp)	SKCM-metastatic SKCM-primary LUAD UCEC HNSC LUAD SKCM-metastatic	Cancer of unknown primary (M14) Cancer of unknown primary (MCC13) Cancer of unknown primary (EB3) Cancer of unknown primary (HCC2998) Prostate cancer (LNCAPCLONEFGC) Non-small cell lung cancer (EKVX) Mixed cancer types (MM386)
2B15	c.117G>A (Met39Ile) c.283G>A (Asp95Asn) c.332C>T (Ser111Leu) c.521G>A (Arg174Gln) c.1323G>T (Glu441Asp) c.1354G>T (Asp452Tyr) c.1458G>A (Trp486Ter) c.790G>A (Asp264Asn)	COAD LUAD, SKCM-metastatic SKCM-metastatic SKCM-metastatic CESC, COAD STAD LUAD SKCM-metastatic	Pancreatic cancer (HS766T) Cancer of unknown primary (TASK1) Melanoma (HS939T) Melanoma (MEWO) Colorectal cancer (SNU81) Mature B-cell neoplasms (NAMALWA) Non-small cell lung cancer (HCC1438) Melanoma (MEWO)
2B17	c.329C>T (Ser110Leu)	SKCM-primary	Cancer of unknown primary (MDAMB330)
2B28	c.352G>A (Glu118Lys) c.462delT (Pro155Leufster33) c.463C>T (Pro155Ser) c.901G>A (Glu301Lys) c.1198C>A (Pro400Thr) c.1262C>T (Ser421Leu) c.1329G>A (Met443Ile) c.1375C>T (Arg459Ter)	SKCM-metastatic SKCM (primary, Metastatic) STAD SKCM-metastatic SKCM-metastatic LUAD GBM, LUSC SKCM-metastatic SKCM-metastatic	Cancer of unknown primary (SW684) Cancer of unknown primary (SW684) Colorectal cancer (RKO) Cancer of unknown primary (NCIH1770) Mixed cancer types (MM370) Non-small cell lung cancer (NCIH1623) Esophagogastric Cancer (KYSE140) Esophagogastric Cancer (SNU1); Melanoma (MEWO)
3A1	c.37C>T (Leu13Phe) c.70A>G (Lys24Glu)	SKCM-metastatic LUAD	Cancer of unknown primary (SW684) Colorectal cancer (SNU175); Cancer of unknown primary (SW872) Cancer of unknown primary (LNZTA3WT4)

3A2	c.211G>A (Glu71Lys) c.490G>A (Ala164Thr) c.1378G>A (Asp460Asn) c.218C>T (Ser73Leu) c.262G>T (Glu88Ter) c.364A>G (Ser122Gly) c.452C>T (Pro151Leu) c.1091G>A (Arg364His) c.1406C>T (Thr469Met) c.1544G>A (Arg515His)	SKCM (primary, Metastatic) COAD BLCA, SKCM-metastatic SKCM-metastatic UCEC LUSC LUSC, SKCM-metastatic GBM BRCA, GBM, LGG, LUAD COAD, GBM	Colorectal cancer (MDST8) Mature B-cell neoplasms (U266B1) Colorectal cancer (SNU81) Cancer of unknown primary (SARC9371) Colorectal cancer (HT115) Cancer of unknown primary (NCIH513) Melanoma (WM793) Endometrial cancer (HEC1A) Cancer of unknown primary (BN6) Colorectal cancer (SW403) B-Lymphoblastic Leukemia/Lymphoma (NAML6) Cancer of unknown primary (D247MG) Endometrial cancer (RL952) Esophagogastric Cancer (2313287)
UGT8	c.187G>A (Ala63Thr) c.559C>T (Arg187Cys) c.1053G>T (Lys351Asn) c.1421dupT (Leu474PhefsTer36)	STAD LUSC UCEC COAD	