

Supplementary Table S1

		GBM																			
Paitents NO.	1201	1202	1204	1205	1206	1208	1211	1212	1213	1217	1220	1224	1225	1226	1227	1230	1233	1234	1235	1236	1237
WHO Grade	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	IV	NA	IV	IV	NA	IV	IV
	GFAP+ Olig-2+ ATRX+ portion	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ ATRX+ portion	GFAP+ P53+ Olig-2+ ATRX+ weak	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ IDH+	GFAP+ P53+ Olig-2+ IDH-	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ IDH-1+	GFAP+ P53+ Olig-2+ IDH-1-	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ IDH-	GFAP+ P53+ Olig-2+ NA	GFAP+ P53+ Olig-2+ ATRX+	GFAP+ P53+ Olig-2+ ATRX+
	p53+ 1%	Olig-2+ portion	ATRX+	p53+ 70%	p53+ 70%	ATRX+	p53+	CD34+ blood vessels	IDH-1-	ATRX-	ATRX+	P53+ portion	IDH-1-	IDH-1+	IDH-1-	CD34+ blood vessels	IDH-1-	ATRX+	NA	Vim+	IDH-1+ weak
	NeuN-/+ IDH-1-	NeuN+ neuron CD34+ blood vessels	Vim+ NeuN-	NeuN- IDH-1-	CD34+ blood vessels IDH-1-	CD34+/- NeuN-	CD34+ blood vessels NeuN-	P53+ portion Vimentin +	CK- CD34-	p53+ Vim+	p53- Vim+	ATRX- Ki-67+ 40%	H3K27Me 3- H3K27M-	CD34+ P53+ NeuN-	P53- NeuN-	p53- 60% G34V-	CD34+ blood vessels p53+ 30%	Vim+ CD34+ blood vessels	NA	p53- CD34+ blood vessels	P53+ 8% Vimentin+
	EMA- Ki-67+ 40%	IDH- Ki-67+ 15%	CD34+ p53+ Ki-67+ 10%	Ki-67+ 50%	NeuN- Ki-67+ 15%	EMA+ P53+ 30% Ki-67+ 40%	IDH-1- ATRX+ weak ATRX+	S-100+ H3K27Me 3- H3K27Me 3- Ki-67+ 30%	EMA- CD34+ blood vessels	NeuN- ATRX- Ki-67+ 25%	CD34+ blood vessels Ki-67+ 30%	CD34+ blood vessels Ki-67+ 25%	CD34+ blood vessels Ki-67+ 50%	ATRX- Ki-67 IDH-1-	CD34+ blood vessels Ki-67+ 30%	G34R- Ki-67+ 25% IDH-1-	Ki-67+ 25% p53+ 15% Ki-67+ 20%	p53+ 15% CD34+ blood vessels	EMA- Ki-67+ 20%	S-100+ IDH- EMA- Ki-67+ 40%	S100+ CD34+ blood vessels

		Sarcoma															
Paitents NO.	1203	1215	1216	1218	1222	1228	1229	1231	1238	1239	1240	1246		1248	1249		1250
WHO Grade	IV	IV	IV	NA	IV	IV	IV	IV	IV	IV	IV	Glioblastoma components	Sarcoma components	NA	Glioblastoma components	Sarcoma components	NA
	IDH wild type	GFAP+ Vim+ CD34+ blood vessels EMA- Olig2- P53+ 80% Ki67+ >50%	NA	GFAP+ focal Vim+ SMA+ S100+ focal CD34	GFAP+ focal EMA+ SSTR+ SMA+ CD34	GFAP+/- CD34+ Vim+ P53+ ATRX-	GFAP+ gliocyte olig-2+ portion IDH-1- P53+ ATRX-	GFAP+ olig-2+ portion IDH-1- P53+ SMA+ portion Des- S100+ CK+ portion ki-67+ 40%	GFAP+ portion Vim+ SMA+ blood vessels CD68+ ki67+ 60%	GFAP+ portion CD56+ CK+ Vim+ S100+ CD34+ EMA- NeuN- P53+ Ki-67+ >30%	GFAP- Olig-2 IDH-1- Vim+ CD34+ blood vessels P53- Braf- NeuN- CK- EMA- SSTR2α- S-100- SOX-10- TLE-1- Ki-67+ 30%	GFAP+ Vim+ S100+ P53+ 70% EMA+ Ki-67+ 15% Ag staining (+)	Vim+ SMA-/+ GFAP+ S-100+ olig2+ portion SOX-10+ NeuN- Olig-2+ EMA+ Ki-67+ 50% CK- P53+ portion CD34- MyoD1- Ki-67+ 15-40% Ag staining (-)	Vim+ SMA-/+ GFAP+ S-100+ olig2+ portion SOX-10+ NeuN- Olig-2+ EMA+ Ki-67+ 50% CK- P53+ portion CD34- MyoD1- Ki-67+ 15-40% Ag staining (-)	Vim+ SMA-/+ GFAP+ S-100+ olig2+ portion SOX-10+ NeuN- Olig-2+ EMA+ Ki-67+ 50% CK- P53+ portion CD34- MyoD1- Ki-67+ 15-40% Ag staining (-)	Vim+ SMA-/+ GFAP+ S-100+ olig2+ portion SOX-10+ NeuN- Olig-2+ EMA+ Ki-67+ 50% CK- P53+ portion CD34- MyoD1- Ki-67+ 15-40% Ag staining (-)	S100+ Vim+ Syn+/- Vim+ EMA- PR- Des- Ki67+ 50%

NA, no available