

**Supplemental Table 1:**

<b>Gene</b>	<b>ID</b>	<b>MIM</b>	<b>Location</b>
GPX1	2876	138320	3p21.31
GPX2	2877	138319	14q23.3
GPX3	2878	138321	5q33.1
GPX4	2879	138322	19p13.3
GPX6	257202	607913	6p22.1
TXNRD1	7296	601112	12q23.3
TXNRD2	10587	606448	22q11.21
TXNRD3	114112	606235	3q21.3
DIO1	1733	147892	1p32.3
DIO2	1734	601413	14q31.1
DIO3	1735	601038	14q32.31
SEPHS1	22929	600902	10p13
SEPHS2	22928	606218	16p11.2
SEPS1	55829	607918	15q26.3
SEPP1	6414	601484	5p12
SEP15	9403	606254	1p22.3

SEPN1	57190	606210	1p36.11
SEPX1	51734	606216	16p13.3
SEPW1	6415	603235	19q13.33
SEPT1	1731	612897	16p11.2
SELH	280636	607914	11q12.1
SELI	85465	607915	2p23.3
SELK	58515	607916	3p21.1
SELM	140606	610918	22q12.2
SELO	83642	607917	22q13.33
SELV	348303	607919	19q13.2
GLCL	2729	606857	6p12.1
GCLM	2730	601176	1p22.1
SEPSECS	51091	613009	4p15.2

**Supplemental Table 2** : Variants with unadjusted p < 0.05 by glioma subtype in GliomaSE cohort

Gene	Variant	GBM			nonGBM		
		OR	(95% CI)	p-value	OR	(95% CI)	p-value
TXNRD1	rs12308914	0.76	(0.58-0.98)	<b>0.03</b>	1.39	(1.07-1.82)	<b>0.01</b>
	rs78730305	0.73	(0.57-0.96)	<b>0.02</b>	1.38	(1.04-1.82)	<b>0.02</b>
	rs17807362	1.07	(0.84-1.36)	0.56	0.69	(0.51-0.94)	<b>0.02</b>
	rs111111953	1.06	(0.94-1.18)	0.35	0.88	(0.77-1.00)	<b>0.04</b>
	rs10778311	0.94	(0.83-1.06)	0.31	1.17	(1.01-1.34)	<b>0.03</b>
	rs112780531	0.88	(0.66-1.16)	0.35	1.4	(1.05-1.87)	<b>0.02</b>
TXNRD2	rs1548357	0.86	(0.76-0.98)	<b>0.02</b>	1.05	(0.91-1.20)	0.55
	rs2073771	0.87	(0.78-0.99)	<b>0.03</b>	1.03	(0.90-1.18)	0.68
	rs1978058	1.13	(1.01-1.27)	<b>0.03</b>	1.03	(0.90-1.17)	0.72
	rs5993875	1.15	(1.02-1.29)	<b>0.02</b>	0.95	(0.84-1.09)	0.48
	rs5748486	1.16	(1.03-1.30)	<b>0.01</b>	0.94	(0.82-1.07)	0.34
SEPHS1	rs61865660	1.15	(1.00-1.32)	<b>0.05</b>	0.93	(0.80-1.09)	0.4
	rs9419275	0.79	(0.65-0.970)	<b>0.02</b>	1.1	(0.88-1.36)	0.41
	rs11250389	0.96	(0.79-1.16)	0.66	0.77	(0.61-0.97)	<b>0.03</b>
	rs9419313	1.01	(0.89-1.16)	0.84	1.17	(1.01-1.36)	<b>0.04</b>
SEPX1	rs13331553	1.17	(1.03-1.32)	<b>0.02</b>	1	(0.87-1.15)	0.98
SEPSECS	rs3796791	1.06	(0.94-1.19)	0.37	0.86	(0.75-0.98)	<b>0.02</b>
SELI	rs62128670	1.05	(0.81-1.36)	0.73	0.62	(0.44-0.87)	<b>0.01</b>
GPX2	rs17880758	0.87	(0.66-1.15)	0.33	1.35	(1.01-1.79)	<b>0.04</b>