

IGFBP2 expression predicts IDH-mutant glioma patient survival

Supplementary Material

Supplementary Table 1: Mutation Frequencies in Lower-grade Glioma

Gene	IDH Wildtype	IDH Mutant
<i>NF1</i>	21%	3%
<i>PIK3CA</i>	9%	8%
<i>PIK3R1</i>	2%	6%
<i>PTEN</i>	25%	0%
<i>RB1</i>	5%	0%
<i>TP53</i>	15%	59%

Supplementary Table 2: Overall Survival of Lower-grade Glioma Patients

Gene	Median Survival (months)	p value	Hazard Ratio (A/B)	95% CI of Ratio
AKT2<0	87.39	0.0015	0.46	0.2522 to 0.8437
AKT2>0	43.86			
ARAF<0	94.45	0.0039	0.52	0.3179 to 0.8569
ARAF>0	52.07			
E2F2<0	79.93	0.0255	0.58	0.3384 to 1.003
E2F2>0	48.98			
ERBB2<0	79.93	<0.0001	0.29	0.1622 to 0.5018
ERBB2>0	26.74			
ERBB3<0	57.88	0.0022	2.07	1.243 to 3.454
ERBB3>0	87.39			
ERBB3-Y1289<0	65.70	0.0144	1.82	1.117 to 2.967
ERBB3-Y1289>0	79.93			
FGFR3<0	79.93	0.0047	0.51	0.2858 to 0.9024
FGFR3>0	41.46			
FOXM1<0	87.39	0.0001	0.41	0.2527 to 0.6703
FOXM1>0	50.10			
IGFBP2<0	87.39	<0.0001	0.11	0.0464 to 0.2624
IGFBP2>0	17.67			
IGFBP2<0	94.45	<0.0001	0.32	0.1876 to 0.5314
IGFBP2>0	41.46			
IDH	19.88	<0.0001	7.20	3.153 to 16.42
IDHm	87.39			
IDH-IGFBP2<0	Undefined	0.0308	0.24	0.1021 to 0.5676
IDH-IGFBP2>0	18.36			
IDHm-IGFBP2<0	87.39	<0.0001	0.05	0.0009576 to 3.058
IDHm-IGFBP2>0	14.98			
IDHm-IGFBP2<0	95.50	0.0040	0.42	0.2077 to 0.857
IDHm-IGFBP2>0	61.96			

IDH-PTEN<0	18.36	0.0121	3.71	1.676 to 8.208
IDH-PTEN>0	133.60			
MYC<0	67.41	0.0014	2.05	1.276 to 3.286
MYC>0	79.93			
NF1<0	48.98	0.0051	1.89	1.125 to 3.168
NF1>0	79.93			
PTEN<0	62.91	0.0032	1.89	1.191 to 3.006
PTEN>0	94.45			
PIK3R1<0	61.96	0.0006	2.24	1.405 to 3.562
PIK3R1>0	94.45			
RB1<0	134.20	0.0482	0.61	0.3849 to 0.9776
RB1>0	67.41			
WWTR1<0	79.93	0.0023	0.50	0.3034 to 0.8095
WWTR1>0	62.91			
WWTR1<0	87.39	0.0241	0.59	0.3736 to 0.9448
WWTR1>0	65.70			

Comparison of RNA expression (genes in *italic* typeface), protein abundance and phosphorylation (roman typeface) between z-scores less than zero and greater than zero of individual genes. IDH, IDH-wildtype glioma patients; IDHm, IDH-mutant glioma patients.

Supplementary Table 3: Disease-free Survival of Lower-grade Glioma Patients

Gene	Median Survival (months)	<i>p</i> value	Hazard Ratio (A/B)	95% CI of Ratio
<i>AKT2</i> <0	53.45	0.0010	0.48	0.2687 to 0.8425
<i>AKT2</i> >0	29.66			
<i>ERBB2</i> <0	53.45	0.0004	0.46	0.2683 to 0.7877
<i>ERBB2</i> >0	34.00			
ERBB3<0	34.00	0.0019	1.92	1.231 to 2.981
ERBB3>0	61.96			
ERBB3-Y1289<0	39.32	0.0282	1.59	1.036 to 2.426
ERBB3-Y1289>0	63.83			
IDH	13.30	<0.0001	5.51	2.435 to 12.49
IDHm	53.52			
IDH- <i>IGFBP2</i> <0	37.68	0.0273	0.29	0.1259 to 0.6626
IDH- <i>IGFBP2</i> >0	9.43			
IDHm- <i>IGFBP2</i> <0	61.96	0.0068	0.18	0.006998 to 4.582
IDHm- <i>IGFBP2</i> >0	29.66			
<i>IGFBP2</i> <0	53.52	<0.0001	0.14	0.05582 to 0.3605
<i>IGFBP2</i> >0	9.43			
IGFBP2<0	68.89	<0.0001	0.44	0.2806 to 0.6963
IGFBP2>0	37.91			
<i>PIK3R1</i> <0	37.91	0.0441	1.52	1 to 2.299
<i>PIK3R1</i> >0	53.52			
<i>WWTR1</i> <0	13.30	0.0071	0.57	0.3613 to 0.8952
<i>WWTR1</i> >0	53.52			

Comparison of RNA expression (in *italic* typeface), protein abundance and phosphorylation (in roman typeface) between z-scores less than zero and greater than zero of individual genes. IDH, IDH-wildtype glioma patients; IDHm, IDH-mutant glioma patients.