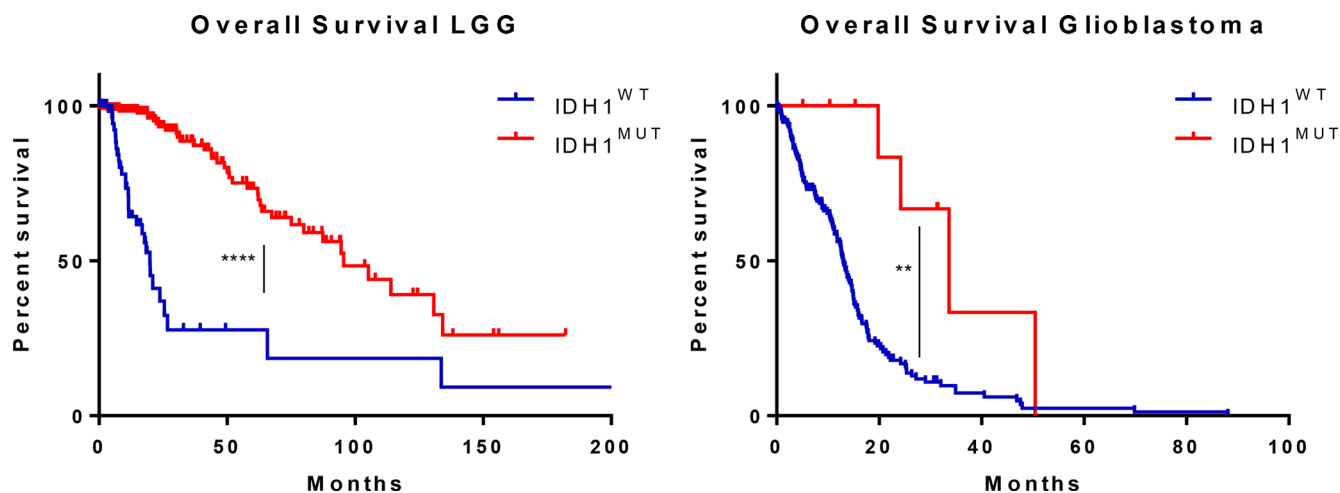


***In silico* gene expression analysis reveals glycolysis and acetate anaplerosis in *IDH1* wild-type glioma and lactate and glutamate anaplerosis in *IDH1*-mutated glioma**

Supplementary Materials



Supplementary Figure 1: Survival curves comparing *IDH1*^{MUT} and *IDH1*^{WT} in LGG and glioblastoma patients in our created dataset. 399 *IDH1*^{MUT} versus 112 *IDH1*^{WT} LGG and 157 *IDH1*^{WT} versus 9 *IDH1*^{MUT} glioblastoma patients. Kaplan–Meier estimates of survival with log-rank tests among strata.

Supplementary Table 1: Selection of genes encoding for enzymes of the glycolytic pathway, TCA cycle, glutamine-glutamate cycle and acetate cycle

Enzyme	Gene Symbol	GeneID
Glucose transporter	SLC2A1	6513
	SLC2A2	6514
	SLC2A3	6515
Hexokinase	HK1	3098
	HK2	3099
	HK3	3101
Glucose-6-phosphate dehydrogenase	G6PD	2539
Pyruvate kinase	PKLR	5313
	PKM2	5315
Lactate dehydrogenase	LDHA	3939
	LDHB	3945
Monocarboxylate transporter	SLC16A1	6566
	SLC16A3	9123
Pyruvate dehydrogenase	PDHA1	5160
	PDHA2	5161
	PDHB	5162
	PDHX	8050
Pyruvate dehydrogenase kinase	PDK1	5163
	PDK2	5164
	PDK3	5165
Citrate synthase	CS	1431
Aconitase	ACO2	50
	ACO1	48
Isocitrate dehydrogenase	IDH1	3417
	IDH2	3418
	IDH3B	3420
	IDH3G	3421
	IDH3A	3419
α -Ketoglutarate dehydrogenase	OGDH	4967
Succinate dehydrogenase	SDHA	6389
	SDHB	6390
	SDHC	6391
	SDHD	6392
Fumarate hydratase	FH	2271
Malate dehydrogenase	MDH1	4190
	MDH2	4191
Pyruvate carboxylase	PC	5091
Phosphoenolpyruvate carboxykinase	PCK1	5105
	PCK2	5106
Acyl-CoA synthetase	ACSS1	84532
	ACSS2	55902
Glutamate dehydrogenase	GLUD1	2746
	GLUD2	2747
Branched chain amino acid transaminase	BCAT1	586
	BCAT2	587
Glutaminase	GLS	2744
	GLS2	27165
Glutamate-ammonia ligase	GLUL	2752

Gene symbol and GeneID were obtained from the Kyoto Encyclopedia of Genes and Genomes.