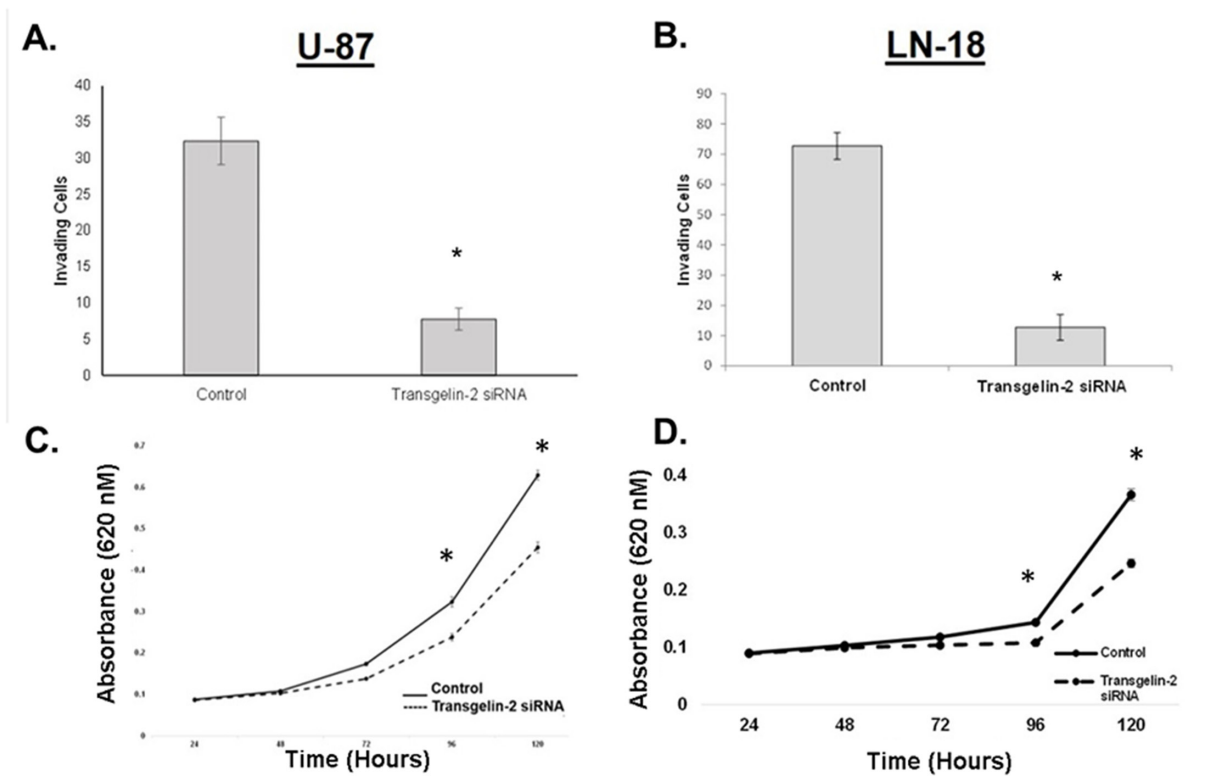


Oncogenic *transgelin-2* is differentially regulated in *isocitrate dehydrogenase* wild-type vs. mutant gliomas

SUPPLEMENTARY MATERIALS

| Peptide Sequence | Protein | Fold Change IDH WT/Mutant | P-Value | FDR |
|------------------|---------|------------------------------|-----------------------|------|
| NFSDNQLQEGK | TAGLN2 | 2.32 | 1.49x10 ⁻³ | 0.49 |
| GASQAGMTGYGMPR | TAGLN2 | 1.93 | 9.01x10 ⁻³ | 0.67 |
| TLMNLGGLAVAR | TAGLN2 | 1.94 | 1.65x10 ⁻² | 0.75 |

Supplementary Figure 1: Proteomics analysis of an institutional validation LGG cohort (7 IDH1/2 WT vs. 23 IDH1/2 mutant) identified 36 differentially regulated proteins in common with our discovery cohort (p<0.05). TAGLN2 was among the 36 differentially regulated proteins. Three peptides corresponding to TAGLN2 were significantly up-regulated in *IDH1/2* WT compared to *IDH1/2* mutant gliomas.



Supplementary Figure 2: Silencing of TAGLN2 in IDH1/2 WT glioma cells resulted in decreased invasion and proliferation. *TAGLN2* levels were transiently knocked-down with *TAGLN2* siRNA in U87 MG and LN18 glioma cells. (A and B) Invasion was significantly decreased 24 hours after TAGLN2 knock-down ($p < 0.05$). (C and D) Cell proliferation detected by methylene blue assay was significantly decreased 96 and 120 hours after TAGLN2 knock-down ($p < 0.05$).