**Supplementary information**

**Figure legends**

**Supplementary Figure 1: Differentially regulated phosphatases in GBM. (A, B, C)** Heat maps indicating differentially regulated phosphatases in REMBRANDT, GSE22866, and GSE7696, respectively.

**Supplementary Figure 2: Probable causes of differential expression of phosphatases. (A)** Graphical representation of phosphatases with copy number variations in GBM. Each vertical bar represents one GBM sample. Red indicates amplification and blue indicates deletion. The percentage of samples in which the phosphatase is amplified or deleted is shown. **(B)** Heat maps depicting the differentially regulated phosphatases which are also differentially methylated. The blue color represents the hypomethylated CpGs (n=14) which corresponds to upregulated genes (n=10) shown in red below. The yellow color depicts the hypermethylated CpGs (n=29) which corresponds to downregulated genes (n=12) shown in green below. **(C)** Heat map showing the methylation pattern of probes corresponding to differentially expressed phosphatases that had differential methylation in GBM samples using GSE79122 for methylation analysis. **(D)** Heat map showing the methylation pattern of probes corresponding to differentially expressed phosphatases that had differential methylation in GBM samples using GSE60274 for methylation analysis. **(E, F)** Tabular representation of phosphatases and putative targeting miRNAs. The green/red box indicates the predicted miRNA-phosphatase targeting pair, while white box indicates non-targeting miRNA-phosphatase pair. Left: upregulated phosphatases predicted to be targeted by downregulated miRNAs; right: downregulated phosphatases predicted to be targeted by upregulated miRNAs.

**Supplementary Figure 3:** R**elative effect of the three factors analyzed on regulation of phosphatases.** **(A)** Venn diagram showing the number of upregulated phosphatases regulated by the 3 factors individually and in combination. **(B)** Venn diagram showing the number of downregulated phosphatases regulated by the 3 factors individually and in combination.

**Supplementary Figure 4: Silencing of STYXL1 in glioma cell lines: (A, B)** Transcript level of STYXL1 in U87 and LN229 after lentivirus mediated silencing of STYXL1 as assessed by real time quantitative PCR.