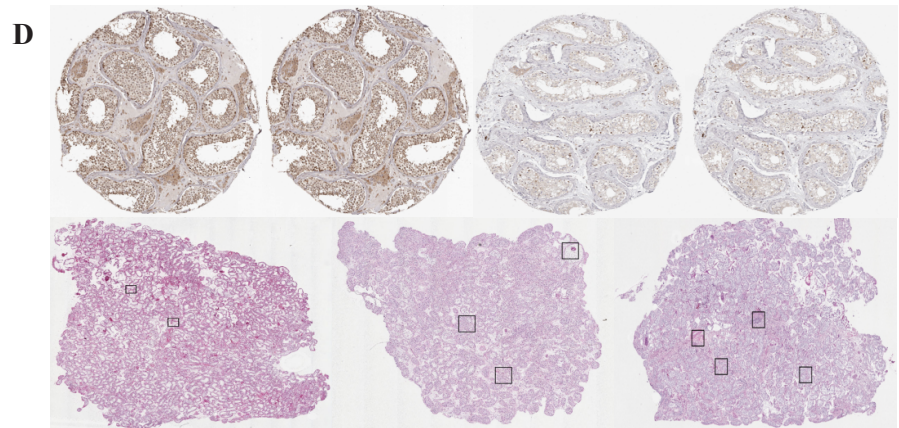
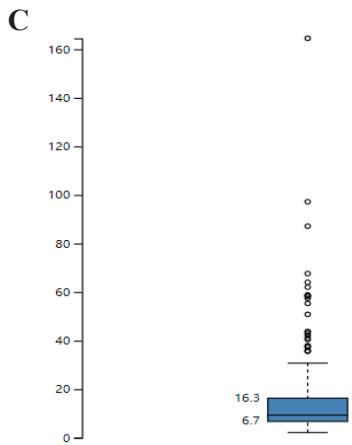


**B**

Tag	logFC	P.Value
IL32	3.859918125	8.91E-06
RPL7L1P3	2.525556345	0.004412876
UTS2B	2.303258023	0.02836837
DRICH1	2.303258023	0.02836837
AC034236.3	2.303258023	0.02836837
CMKLR1	-2.410322837	4.27E-05
ASIC4	-2.524570307	0.022460372
DMBT1	-2.524570307	0.022460372
AC026436.1	-2.556116829	0.004072105
HIST2H4B	-3.271620189	0.002429696



**Supplementary Fig. 2.** RNA sequencing data analysis. Differentially expressed genes (DEGs) were identified by comparing glioblastoma and normal samples using limma. Pathway enrichment analysis indicated that DEGs are enriched in PI3K-Akt signalling, Th1/Th2 cell differentiation, TGF-beta signalling, TRP channel regulation, and DNA repair processes. The top ten DEGs included IL32, RPL7L1P3, and UTS2B. IL32 expression was validated in GBM tissue via IHC and HE staining, quantified using ImageJ. IL32 is significantly overexpressed in glioblastoma, participates in immune and inflammatory signalling, and may serve as a molecular indicator of transcriptional dysregulation in the tumour microenvironment.