



**Figure S6. A**, Telomerase activity in mouse normal brain, orthotopic PDX DIPG tumor, and patient-derived DIPG-1 cells (CCHMC-DIPG-1), along with negative and positive controls for TRAP assay. IC, indicates internal control. Telomerase products are indicated. **B**, Telomere FISH-IF images of orthotopic DIPG tumor (PDX) and the matched normal mouse brain. TIFs (yellow) are indicated by white arrows, telomeres (TelC; red) and 53BP1 (green). DAPI (blue) indicates nucleus staining. The two images are from the brain of the same mouse. Of note, mouse telomeres are longer than human, hence the strong telomere signals (in red) in mouse brain relative to human DIPG tumor.