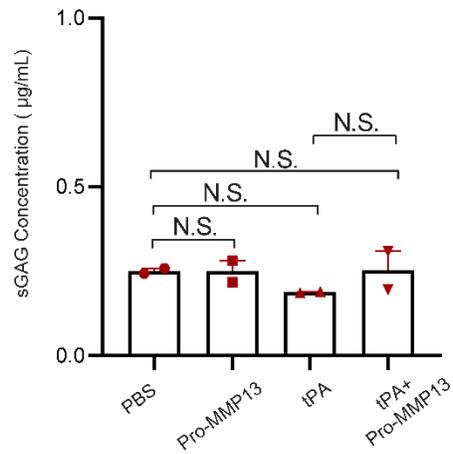


**Supplemental Figure 1. The gene expression of *PLAU* and *PLAUR* from bulk RNA-seq.**

The synovial tissue RNA was extracted from DMT, RA, and OA patients and sequenced. Data is presented as normalized log2 counts of *PLAU* and *PLAUR* expression in the synovium. Within the comparison, only the upregulated expression of *PLAU* in OA compared with DMT is significant. The rest are not. NS  $P > 0.05$ , \* $P \leq 0.05$ , \*\* $P \leq 0.01$ , and \*\*\* $P \leq 0.001$  by one way ANOVA.



**Supplemental Figure 2. Effects of tPA on the articular cartilage proteoglycan degradation.**

ELISA quantification of soluble sGAG released from cartilage explants from individuals with OA, treated with PBS, pro-MMP13 alone, tPA alone, or tPA and pro-MMP13 together. All data are the mean  $\pm$  SEM of triplicates and are representative of three independent experiments. NS  $P > 0.05$ , \* $P \leq 0.05$ , \*\* $P \leq 0.01$ , and \*\*\* $P \leq 0.001$  by one way ANOVA.