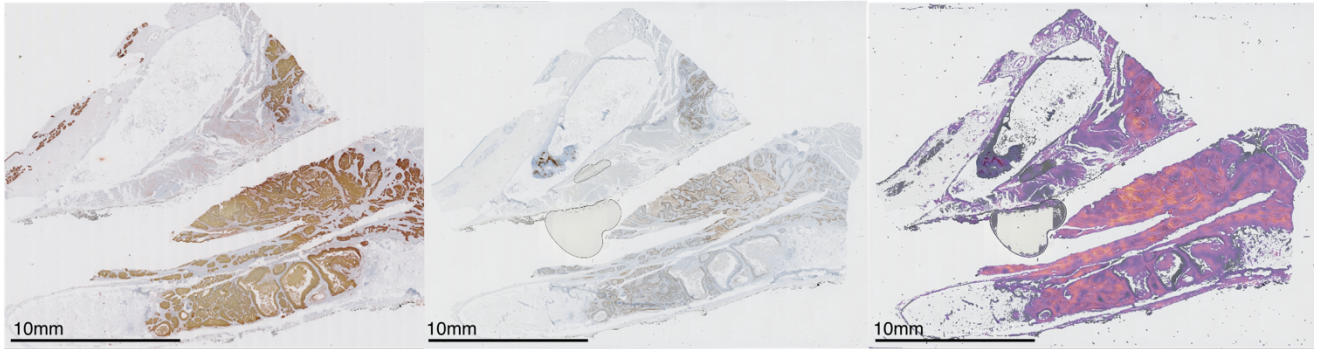


High PDL1 status (TPS $\geq$ 1)

A) PanCytokeratin IHC staining

B) PD-L1 IHC staining

C) Attention heatmaps

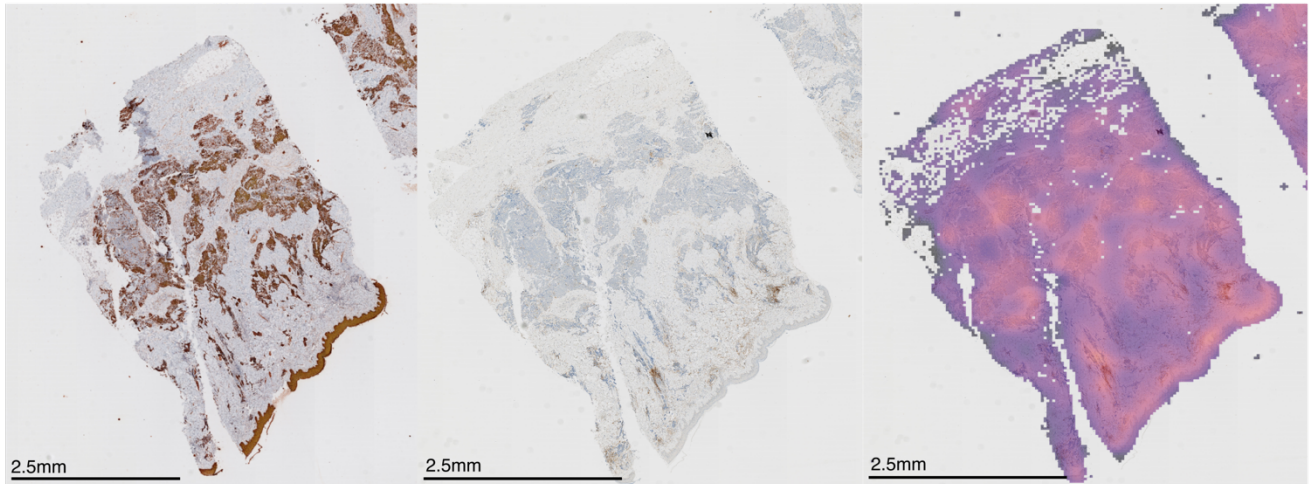


Low PDL1 status (TPS $<$ 1)

D) PanCytokeratin IHC staining

E) PD-L1 IHC staining

F) Attention heatmaps



**Figure S2. Visualization of PanCytokeratin IHC staining, PD-L1 IHC staining and model attention heatmaps of a high (top) and low (bottom) PD-L1 score patients pan-cancer-VHIO cohort.** PanCytokeratin IHC stained images differentiate tumor tissue (A, D). PD-L1 IHC stained images highlight tumor cells with high PD-L1 expression (B, E). Attention heatmaps indicate that the model is considering tumor areas for evaluating TPS (C,F)