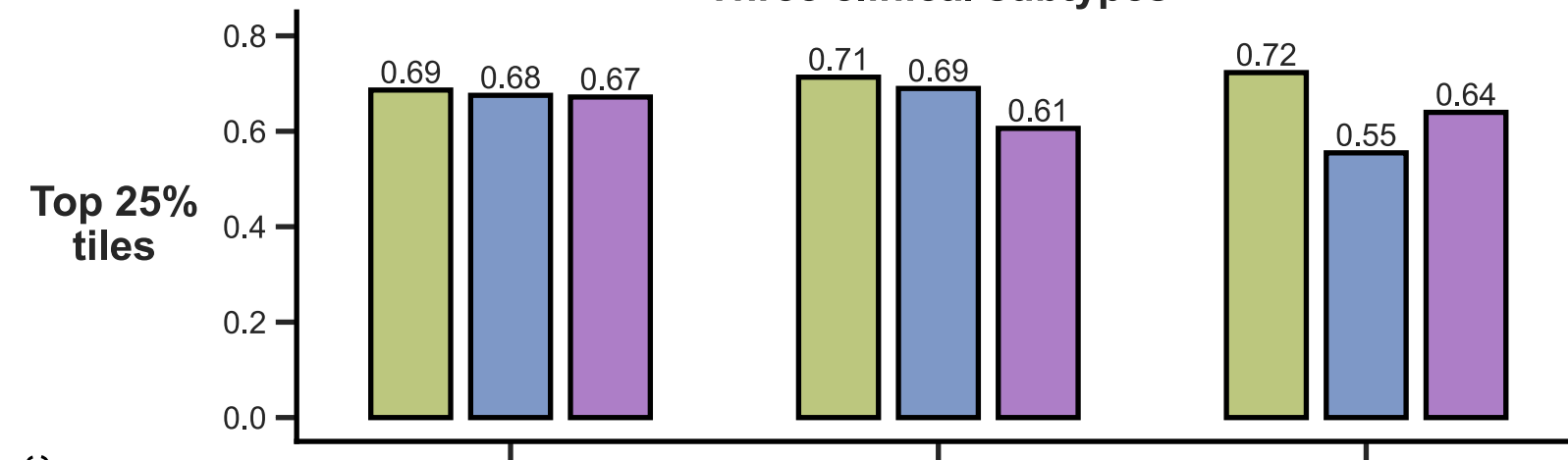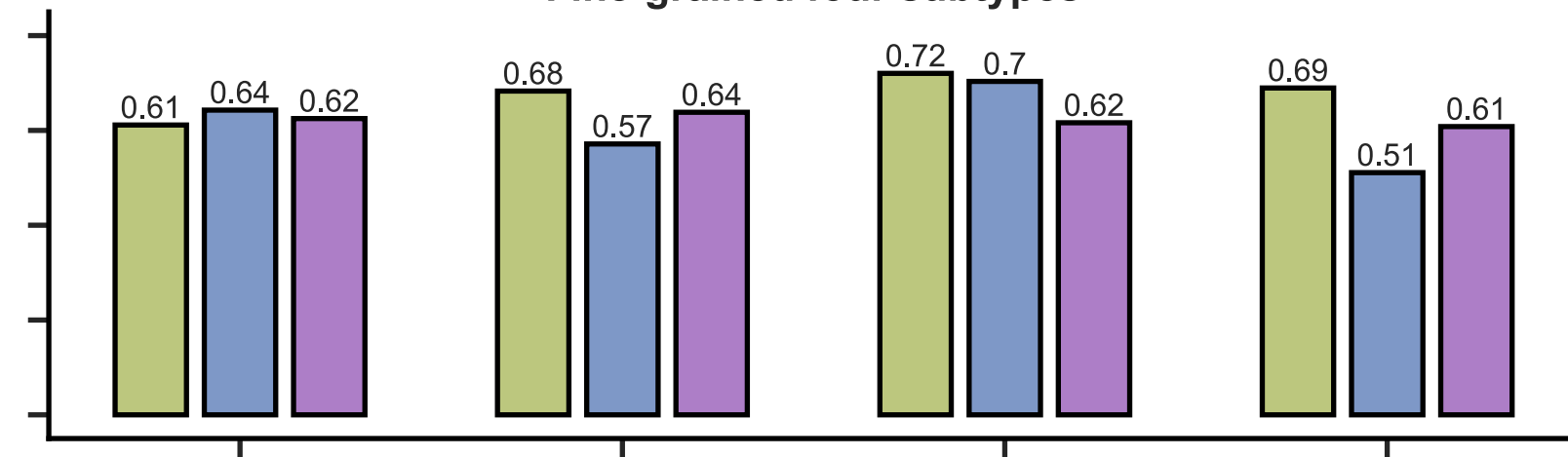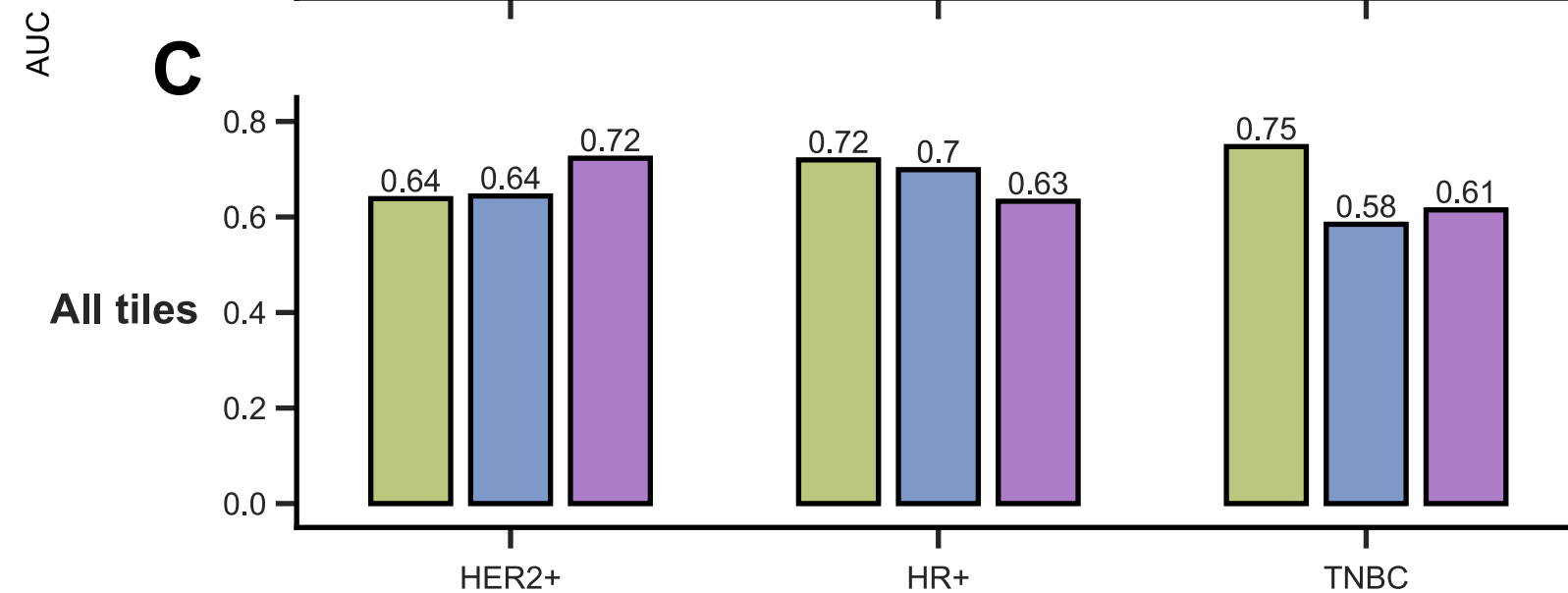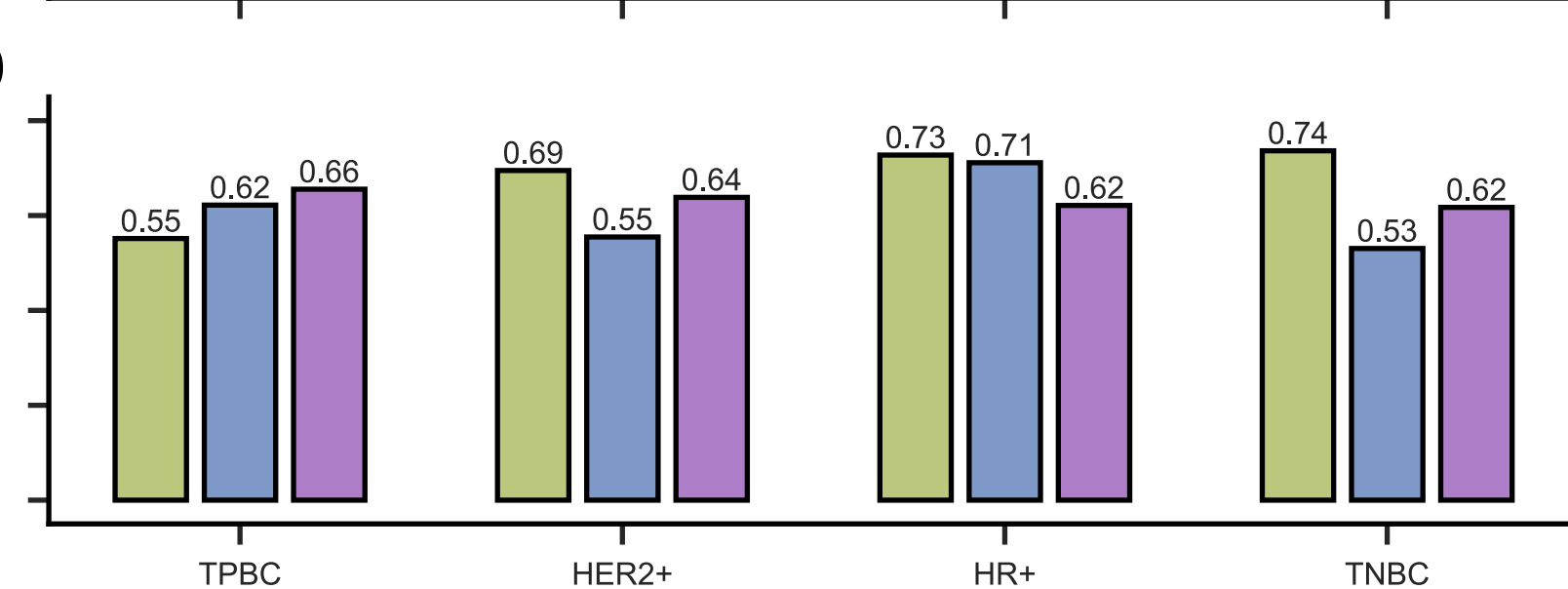Tumor subtype prediction using Immune NPIFs