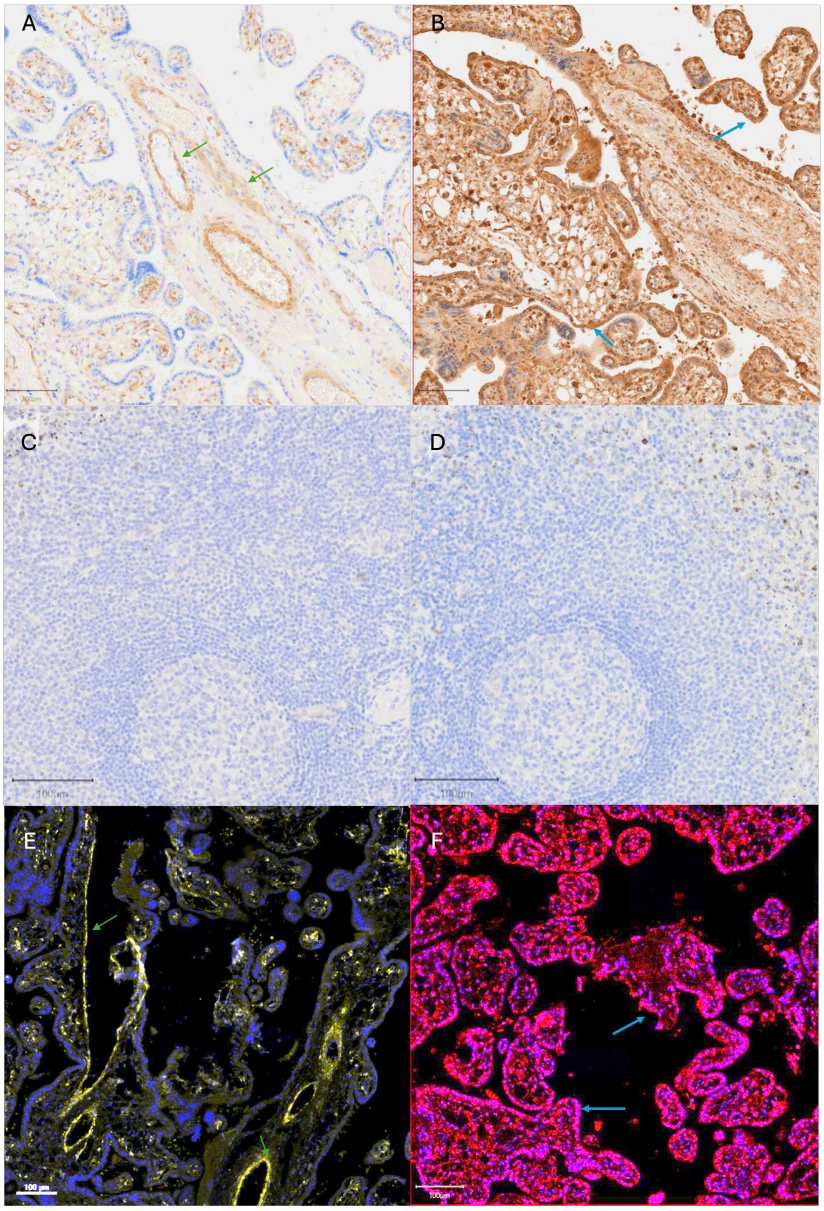

Figure 4.6: **IHC and Uniplex IF Validation of FAK and p-FAK Staining**

A) IHC staining of FAK (brown pigment) on human placenta (positive control). Green arrows indicate membranous and cytoplasmic pattern of staining in trophoblast cells **B)** IHC staining of p-FAK (brown pigment) on human placenta (positive control). Cyan arrows indicate areas of cytoplasmic staining in trophoblast cells **C)** IHC staining of FAK (brown) on human spleen (negative control) showing only diffuse non-specific background staining **D)** IHC staining of p-FAK (brown) on human spleen (negative control) showing only non-specific background staining. **E)** Uniplex IF staining of FAK on human placenta (yellow). Green arrows indicate membranous pattern of staining in trophoblast cells **F)** Uniplex IF staining of p-FAK on human placenta (magenta staining). Cyan arrows indicate areas of cytoplasmic staining in trophoblast cells. All sections counter stained with the nuclear stain 4,6-diamidino-2-phenylindole (DAPI) (Blue). Scale bars 100 μm

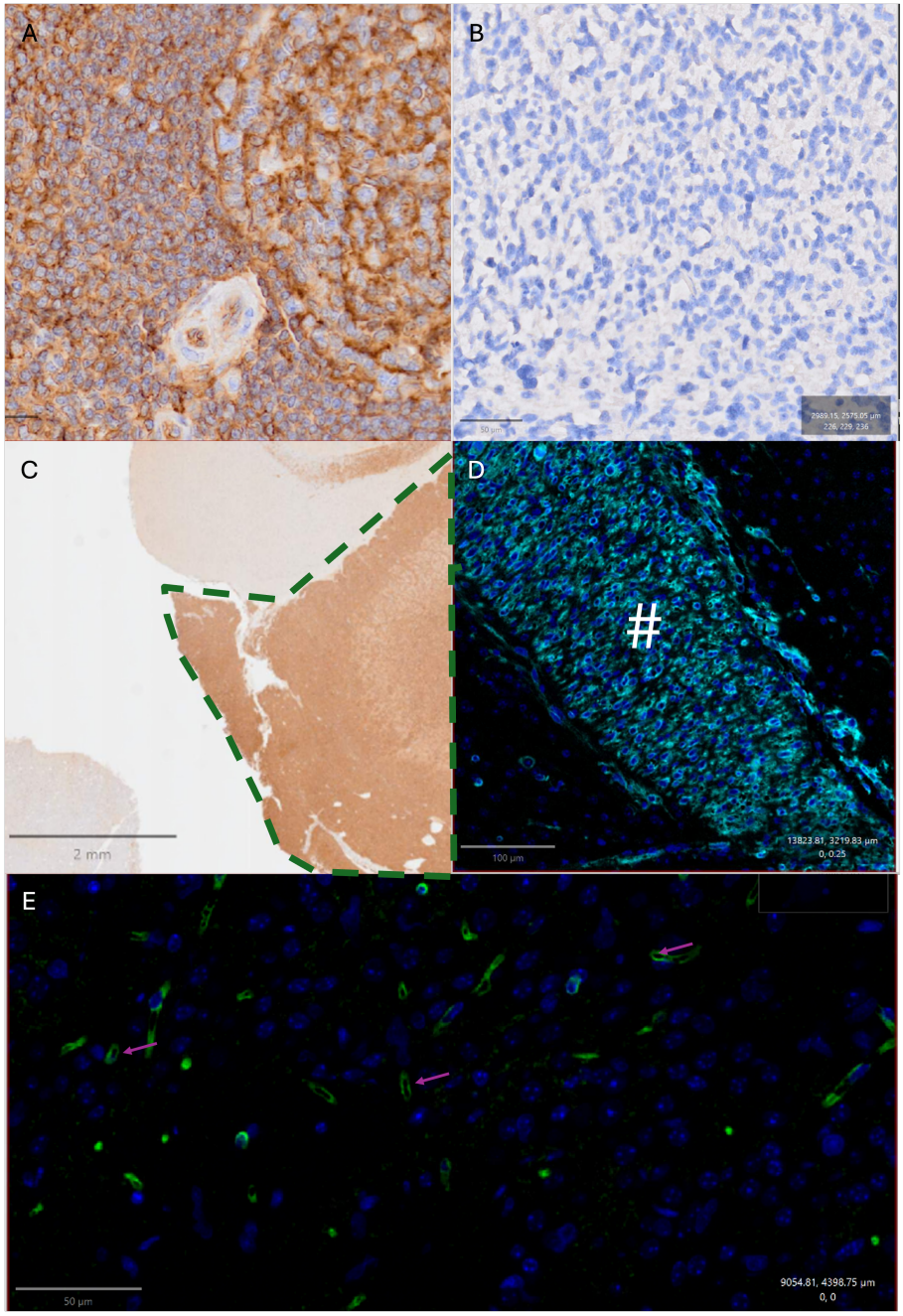

Figure 4.7: **IHC and Uniplex IF Validation of HLA and GLUT-1 Staining**

A) IHC staining of HLA (brown pigment) on human spleen (positive control) showing diffuse staining of tissues **B)** IHC staining of HLA (brown pigment) on mouse brain (negative control), showing no staining of tissues **C)** IHC staining of HLA (brown pigment) in human GBM xenograft in mouse brain demonstrating dense staining of the xenograft GBM cells (green area) with no staining in surrounding normal mouse brain **D)** Uniplex IF staining of HLA (cyan) in human GBM xenograft in mouse brain demonstrating dense staining of the xenograft GBM cells (#) with no staining in surrounding normal mouse brain **E)** Uniplex IF staining of GLUT-1 (green) on normal mouse brain. Magenta arrows indicate tubular structures consistent with blood vessels.All sections counter stained with the nuclear stain 4,6-diamidino-2-phenylindole (DAPI) (Blue). Scale bars A-B, E = 50 μm, C = 2 mm, D = 100 μm