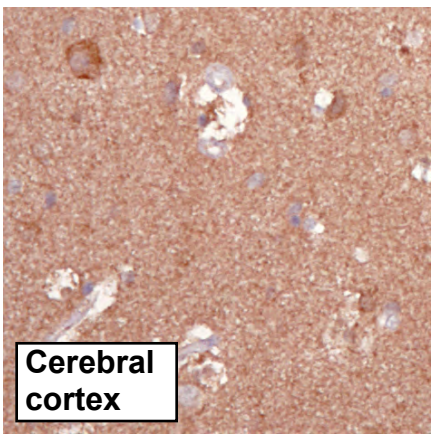
Glucose-6-phosphate isomerase

UniProt

Function: Besides it's role as a glycolytic enzyme, mammalian GPI can function as a tumor-secreted cytokine and an angiogenic factor (AMF) that stimulates endothelial cell motility. GPI is also a neurotrophic factor (Neuroleukin) for spinal and sensory neurons.
Subcellular location: Cytoplasm. Secreted.

Three antibodies: GPI-1, GPI-2 and GPI-3 were tested. All three antibodies were approved for IHC. GPI-1 was selected for full protein profiling.

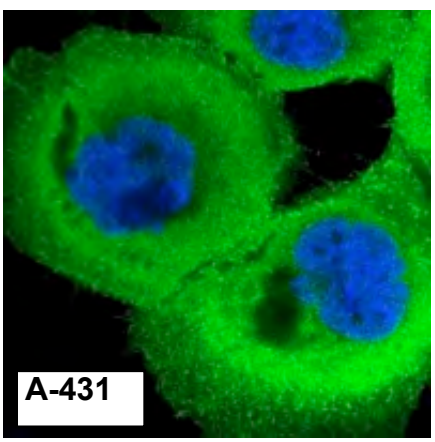
GPI-1 (CAB040563)



Immunohistochemistry

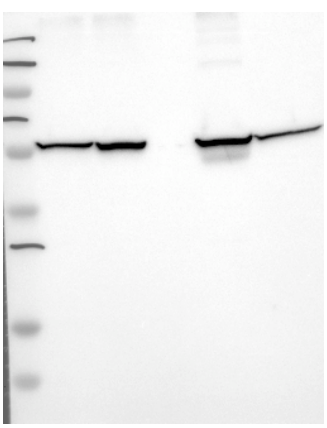
IHC protocol: HIER pH 6, Dilution 1:50000
IHC test staining: Ubiquitous cytoplasmic staining with high expression in, eg peripheral leukocytes, CNS (neuropil), leydig cells and fallopian tube.

IHC Annotators comments
Normal tissues showed moderate to strong cytoplasmic staining often combined with nuclear positivity. Bile duct cells, renal glomeruli, trophoblasts, skeletal muscle and the glial cells were weakly stained or negative.
Malignant tissues showed moderate to strong cytoplasmic and/or nuclear staining. Several cases of malignant gliomas and lymphomas were weakly stained or negative.



Immunofluorescence

IF Overlay: antibody (green), anti-tubuline (red) and DAPI (blue)
IF Localisation: Staining of cytoplasm, nucleus and plasma membrane in all three cell lines.
IF Validation: Subcellular localization supported by literature.



Western blot

WB Size markers (kDa): 250, 130, 95, 72, 55, 36, 28, 17, 11
WB Lanes: Marker(1), RT-4(2), U251 MG(3), Plasma(4), Liver(5), Tonsil(6)
WB Target weight (kDa): 64, 63, 60, 56
WB Validation: Supportive - Band of predicted size in kDa (+/-20%) with additional bands present.