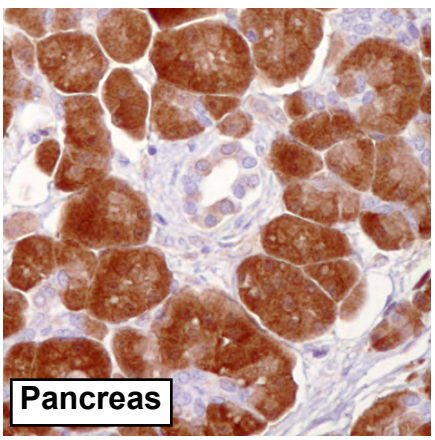
Phosphoserine aminotransferase 1

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.

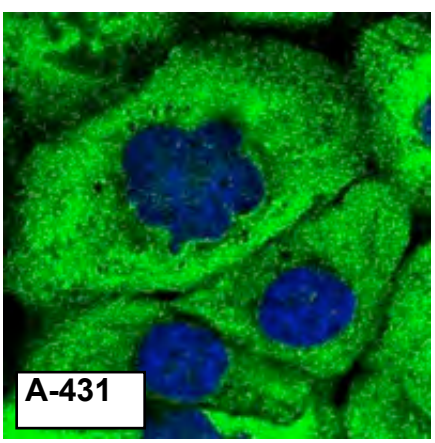
Three antibodies: GPI-1, GPI-2 and GPI-3 were tested. All three antibodies were approved for IHC. GPI-1 was selected for full protein profiling.

PSAT1-2 (CAB040567)



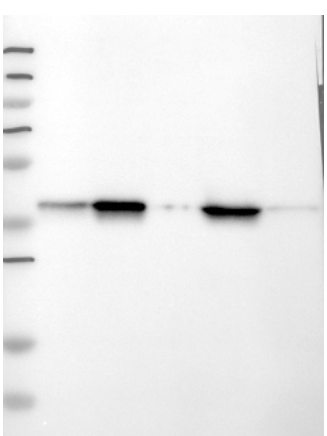
Immunohistochemistry

IHC protocol: HIER pH 6, Dilution 1:5000
IHC test staining: Cytoplasmic staining in selected tissues, eg kidney, pancreas CNS, fallopian tube and endometrium.
IHC Annotators comments
Hepatocytes, exocrine pancreas, adrenal cortex, cells in CNS, renal tubules and cases of cquamous epithelia displayed strong cytoplasmic and nuclear immunoreacitivity. A majority of the reamining normal tissues exhibited weak to moderate positivity. Muscle, breast, placenta, thyroid and parathyroid glands were negative.
Most malignant gliomas and endometrial cancers along with cases of hepatocellular carcinomas displayed strong cytoplasmic and nuclear positivity. Several malignant melanomas, colorectal, testicular, cervical and ovarian cancers displayed moderat positivity. Remaining malignancies were in general negative or weakly stained.



Immunofluorescence

IF Overlay: antibody (green), anti-tubuline (red) and DAPI (blue)
IF Localisation: Staining of cytoplasm in all three cell lines. Additional staining of nuclear membrane in A-431.
IF Validation: Subcellular localization partly supported by literature or where no literature is available.



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): 45, 40, 35
WB Validation: Supportive - High specificity (no other antigen with signal >15%).