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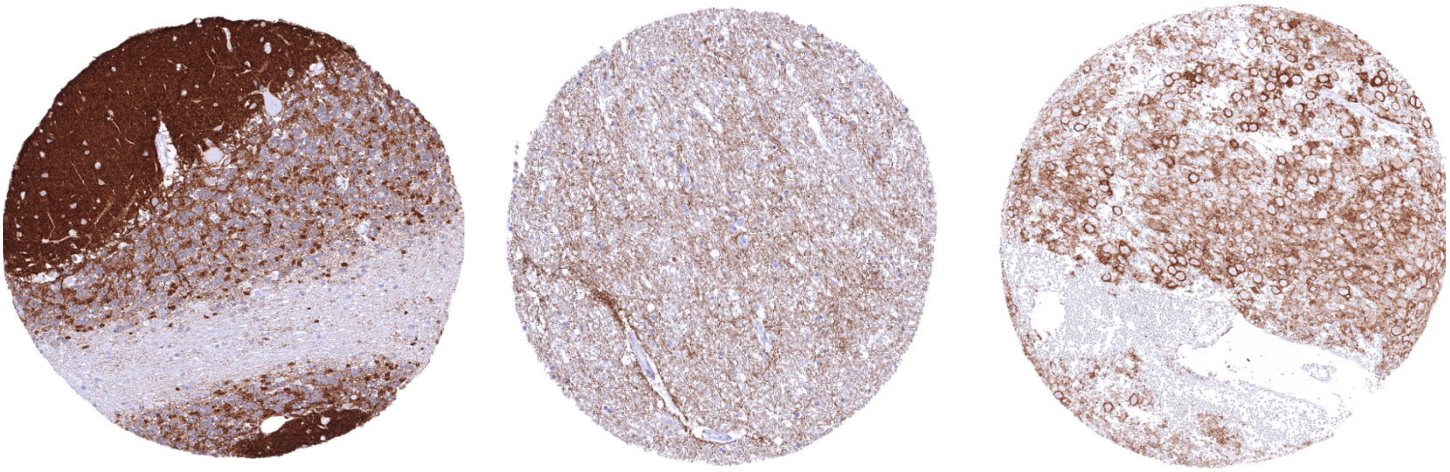
Anti- GPM6A Antibody
HMV3973 / Recombinant Rabbit monoclonal

Human SwissProt	P35802
Human Gene Symbol	GPM6A
Synonyms	Glycoprotein m6a, M6A, Gpm6
Specificity	GPM6A
Immunogen	Recombinant human GPM6A fragment
Isotype	Rabbit / IgG
Species Reactivity	Human

Localization	Cytoplasmic
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	Purified antibody from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with <1% BSA & <0.1% azide. Antibody concentrate is optimized for dilution within dilution range using commercially available antibody diluent for IHC.
Positive Control	Cerebrum (grey matter): A strong membranous GPM6A staining of neurons should be seen in combination with a strong fibrillar staining (axons).
Negative Control	Tonsil: GPM6A staining should be completely absent in all cell types.



Biology

Glycoprotein M6A (GPM6A) is a membranous glycoprotein coded by the GPM6A gene at chromosome 4q34.2. Together with PLP1, DM20, and GPM6B, GPM6A forms the proteolipid protein (PLP) family which are the main group of proteins of the myelin sheath in the brain. Among normal tissues, GPM6A expression is limited to the brain. GPM6A is highly expressed in neurons of the central nervous system. It is assumed that GPM6A has a role in intracellular transport. It plays a role in important processes including neuronal differentiation, axon growth, synaptogenesis, migration, and the formation of the spine. Altered expression levels or molecular structure of GPM6A has been found in several neuropsychiatric disorders. Including schizophrenia and depression. GPM6A has also been suspected to play a role in extracranial cancer. GPM6A expression has been described in multiple tumor types including lymphoid leukemia, thyroid cancer, and colorectal adenocarcinoma.

Potential Research Applications

-The role of GPM6A in the function of the brain needs to be further evaluated.
-The role of GPM6A in neuropsychiatric disorders needs to be further evaluated.
-The role of GPM6A in cancer is not understood.

Protocol Suggestions

Dilution: 1:100 – 1:200. pH 7,8 is optimal. Freshly cut sections should be used (more than 10 days between cutting and staining deteriorates staining intensity for most antibodies in IHC).

Limitations

This antibody is available for **research use only** and is not approved for use in diagnostics.

Warranty

There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.

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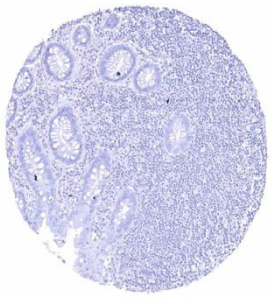
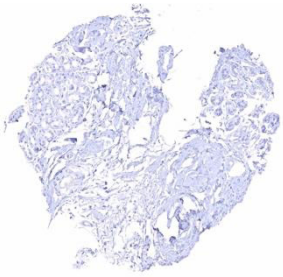


Appendix, mucosa

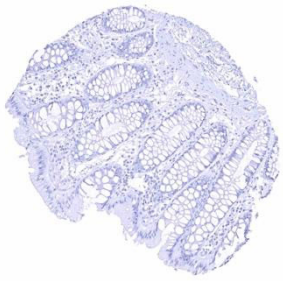


Breast

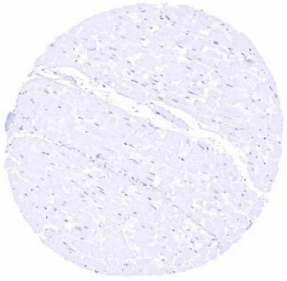
Cerebellum, cortex – Strong membranous GPM6A staining of neurons including Purkinje cells, and a

Cerebrum, grey matter – Strong membranous GPM6A staining of neurons especially along axons, at

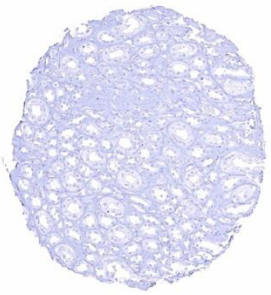
Cerebrum, white matter – Moderate fibrillar GPM6A staining of nerve fibres, at least



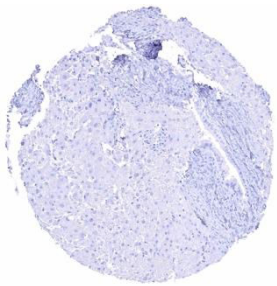
Colon descendens, mucosa



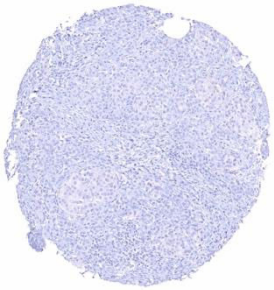
Heart muscle



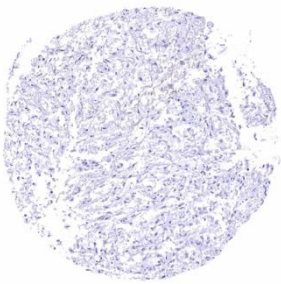
Kidney, medulla



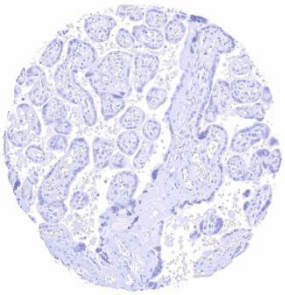
Liver



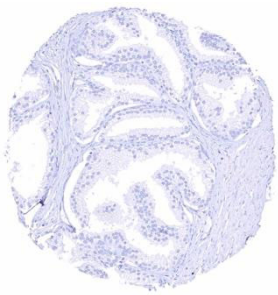
Pancreas



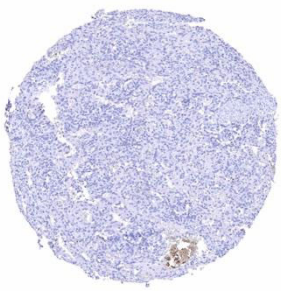
Pituitary gland, posterior lobe – Moderate focal fibrillar GPM6A staining.



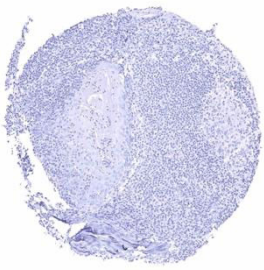
Placenta, mature



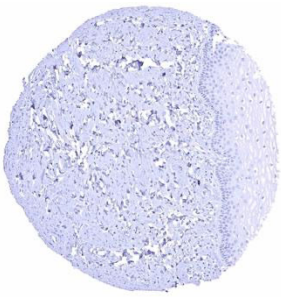
Prostate



Spleen



Tonsil



Uterus, ectocervix