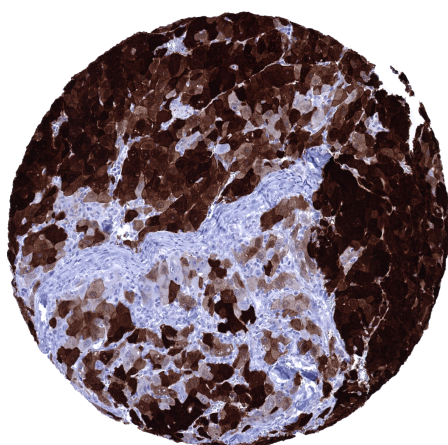


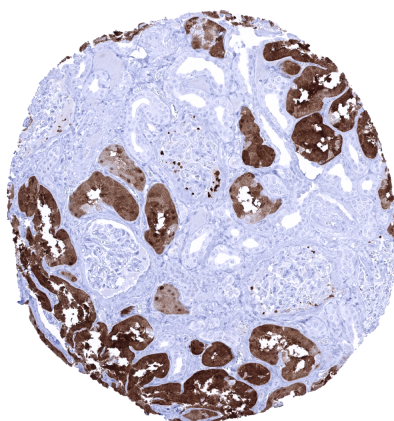
Anti-FABP1 Antibody MSVA-501M / Mouse monoclonal

Human SwissProt	P07148
Human Gene Symbol	FABP1
Synonyms	FABP1, L-FABP
Specificity	FABP1
Immunogen	Recombinant fragment of human FABP1 protein
Isotype	Mouse / IgG
Species Reactivity	Human
Localization	Cytoplasmic and Nuclear

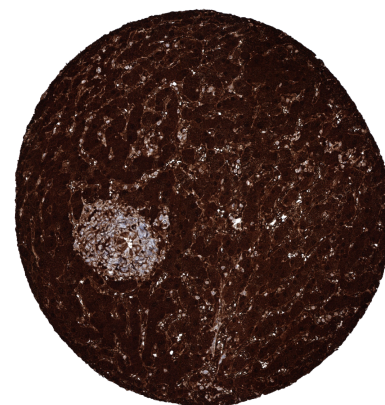
Storage & Stability	Antibody with azide – store at 2 to 8 C. Antibody without azide – store at -20 to -80 C. Antibody is stable for 24 months. Non-hazardous. No MSD required.
Supplied As	200ug/ml of Ab Purified from Bioreactor Concentrate by Protein A/G. Prepared in 10mM PBS with 0.05% BSA & 0.05% azide.
Positive Control	Tonsil: A strong cytoplasmic FABP1 immunostaining should be seen in cells of the proximal tubule while other cell types remain negative or display only a faint staining.
Negative Control	Tonsil: All epithelial and lymphocytic cells must not show any FABP1 immunostaining.



Hepatocellular carcinoma with strong FABP1 immunostaining of 95% of tumor cells.



Kidney, cortex - In the kidney, FABP1 immunostaining preferentially occurs in proximal tubuli.



Liver - FABP1 immunostaining is intense in normal hepatocytes. Contamination artifacts occur in adjacent structures due to very high levels of FABP1 protein in these epithelia.

Biology

All nine known fatty acid binding protein (FABP) isoforms are expressed in a tissue specific manner and their level of expression is proportional to the rate of fatty acid metabolism. FABP1 is a 14kDa protein coded by the FABP1 gene at 2p11.2. It is most abundantly expressed in the liver where it accounts for about 10% of the total cytosolic protein. FABP1 is involved in the binding, transport and metabolism of long-chain fatty acids and other hydrophobic molecules in the liver. Unlike other members of the FABP family, FABP1 contains a large hydrophobic binding pocket capable of binding to a particularly broad spectrum of hydrophobic ligands and of simultaneously attaching multiple ligands. FABP1 ligands include bilirubin, bile acids or monoglycerides but also benzodiazepines, fibrates, β -blockers, and non-steroidal anti-inflammatory drugs. FABP1 may play a significant role in preventing cytotoxicity/activity of these and other molecules. Several mutations of the FABP1 gene have been linked to specific metabolic conditions including obesity, cardiovascular disease and diabetes. In normal tissue, a strong FABP1 immunostaining can be observed in hepatocytes of the liver, proximal tubular cells of the kidney and in epithelial cells of the small intestine, appendix, and the colorectum. The TCGA database on RNA expression in cancer has described upregulation of FABP1 in most hepatocellular carcinomas and a fraction of colorectal and stomach cancers. Most other important tumor entities are usually negative.

Potential Research Applications

- The diagnostic utility of FABP1 IHC should be investigated in a large cohort of tumors from different entities.
- Clinical and prognostic significance of FABP1 expression levels in gastrointestinal cancers is unknown.
- The clinical significance of FABP1 gene variants is under investigation.

Protocol Suggestions

Dilution: 1:150 ; pH7,8 is optimal.

Freshly cut sections should be used (less than 10 days between cutting and staining).

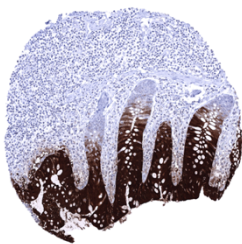
Limitations

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

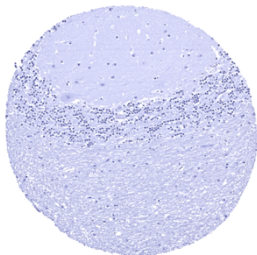
Not for resale without express authorization.

Warranty

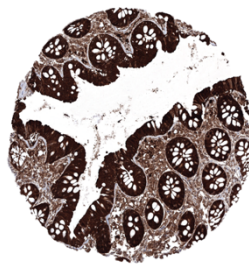
There are no warranties, expressed or implied, which extend beyond this description. MSVA is not liable for any personal injury or economic loss resulting from this product.



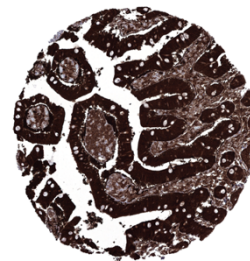
Appendix , mucosa - Strong FABP1 immunostaining of the surface cell layers of the epithelium of the appendix



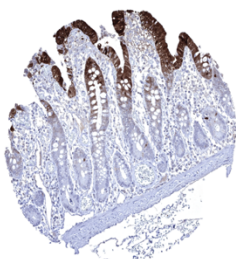
Cerebellum (molecular layer, Purkinje cell layer, granule cell layer, white matter)



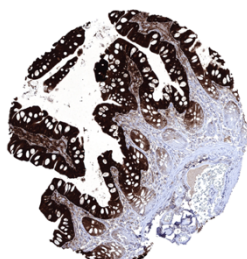
Colon descendens, mucosa - Strong FABP1 immunostaining of colon epithelial cells. Due to very high levels of FABP1 protein in these epithelia, staining of adjacent tissues can occur (contamination artifact)



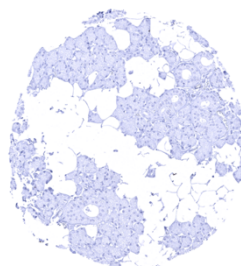
Duodenum, mucosa - Strong FABP1 immunostaining of duodenal epithelial cells. Due to very high levels of FABP1 protein in these epithelia, staining of adjacent tissues can occur



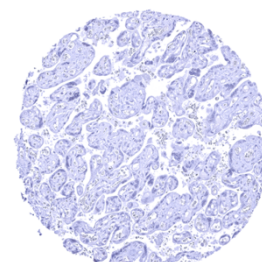
Duodenum, mucosa - Strong FABP1 immunostaining of the surface cell layers of the duodenal epithelium



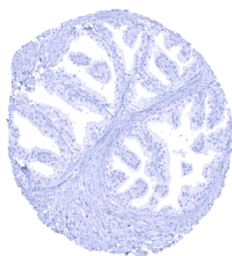
Ileum, mucosa - Strong FABP1 immunostaining of epithelial cells. Due to very high levels of FABP1 protein in these epithelia, some staining of adjacent tissues is



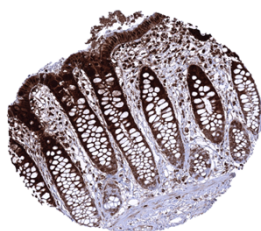
Parotid gland



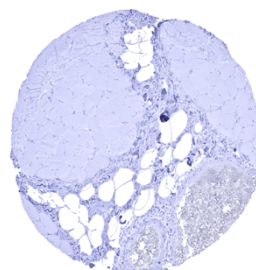
Placenta, mature



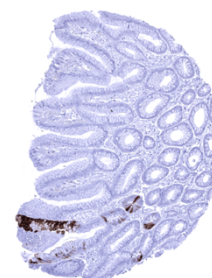
Prostate



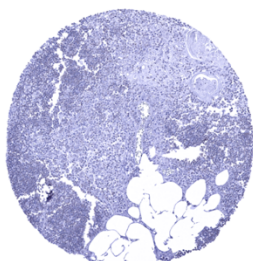
Rectum, mucosa - Strong FABP1 immunostaining of epithelial cells of the rectum. Staining is more intense at the surface than at the base of the crypts.



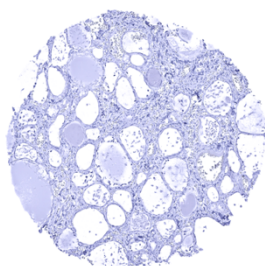
Skeletal muscle



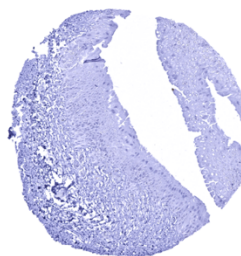
Stomach, antrum - A focal FABP1 positivity of stomach antrum epithelium can occasionally be seen (1/8 samples)



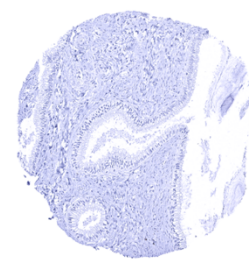
Thymus



Thyroid gland



Urinary bladder, urothelium



Uterus, endocervix