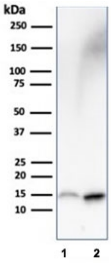
FABP1 Antibody - HuProt Validation [clone FABP1/3487] (V8541)

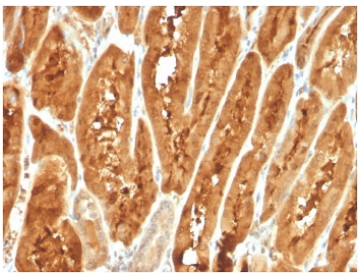
Catalog No.	Formulation	Size
V8541-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8541-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8541SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

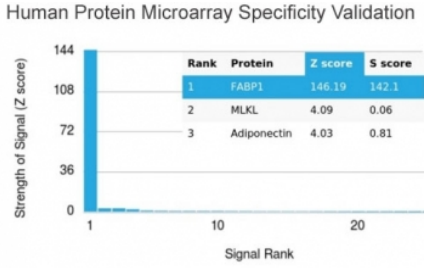
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	FABP1/3487
Purity	Protein G affinity chromatography
UniProt	P07148
Localization	Cytoplasmic and Nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This FABP1 antibody is available for research use only.



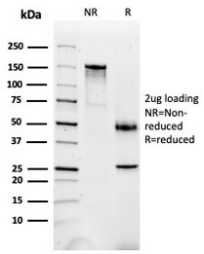
Western blot testing of human 1) HepG2 and 2) kidney lysate with FABP1 antibody. Predicted molecular weight: ~14 kDa.



IHC staining of FFPE human liver carcinoma with HuProt validated FABP1 antibody clone FABP1/3487. HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



Human protein microarray specificity validation of FABP1 Antibody - HuProt Validation clone FABP1/3487. Analysis of the HuProt(TM) microarray containing more than 19,000 full-length human proteins was performed using FABP1 antibody clone FABP1/3487. The antibody demonstrates strongest binding to FABP1 with a Z-score of 146.19 and an S-score of 142.1, showing clear separation from other proteins on the array, including MLKL and Adiponectin. These results demonstrate the high specificity of clone FABP1/3487 for Liver fatty acid binding protein.
Z- and S-score explanation: The Z-score represents the strength of the signal generated when the antibody, in combination with a fluorescently tagged anti-IgG secondary antibody, binds to a specific protein on the HuProt(TM) array. Z-scores are expressed in standard deviations above the mean signal of all proteins tested. Proteins are ranked in descending order according to Z-score. The S-score represents the difference between sequential Z-scores and reflects the relative specificity of the antibody for its intended target compared to potential off-target interactions.



SDS-PAGE analysis of purified, BSA-free FABP1 antibody as confirmation of integrity and purity.

Description

FABP1 Antibody - HuProt Validation clone FABP1/3487 recognizes Liver fatty acid binding protein, also known as FABP1 or L-FABP, a cytoplasmic lipid binding protein encoded by the FABP1 gene on chromosome 2p11.2. Liver fatty acid binding protein is abundantly expressed in hepatocytes and functions as an intracellular lipid chaperone that regulates the uptake, trafficking, and metabolism of long chain fatty acids. FABP1 is a member of the fatty acid binding protein family, a group of small cytoplasmic proteins that coordinate lipid homeostasis and lipid-mediated signaling pathways.

Structurally, FABP1 contains a conserved beta barrel motif that forms a hydrophobic ligand binding pocket. This configuration enables binding of long chain fatty acids, bile acids, eicosanoids, and other hydrophobic ligands, facilitating their solubilization and intracellular transport. In hepatocytes, FABP1 contributes to fatty acid uptake, beta oxidation, triglyceride synthesis, and protection against lipotoxic stress. Through these functions, Liver fatty acid binding protein plays an essential role in hepatic energy metabolism and regulation of lipid balance.

In normal tissues, FABP1 expression is strongest in liver, where it localizes to the cytoplasm of hepatocytes. Lower levels of expression are observed in kidney proximal tubule epithelium and small intestinal enterocytes. Because of its abundant and relatively tissue-restricted distribution, FABP1 antibody is widely used in research to study hepatocellular differentiation, metabolic regulation, and liver-associated disease models. Cytoplasmic staining in hepatocytes represents the expected localization pattern.

Clone FABP1/3487 has been validated using the HuProt(TM) human protein microarray platform containing more than

19,000 full-length human proteins. HuProt validation demonstrates strong target selectivity for FABP1 with clear separation from unrelated proteins, supporting high specificity and minimal cross-reactivity. FABP1 Antibody - HuProt Validation clone FABP1/3487 is suitable for detecting Liver fatty acid binding protein expression in relevant research applications involving hepatic biology and lipid metabolism.

Application Notes

Optimal dilution of the FABP1 antibody should be determined by the researcher.

Immunogen

A portion of amino acids 1-127 from the human protein was used as the immunogen for the FABP1 antibody with HuProt validation.

Storage

Store the FABP1 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).