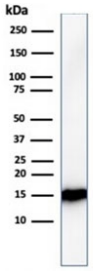
FABP1 Antibody - Microarray Validated [clone FABP1/3482] (V8376)

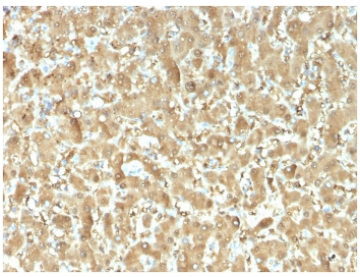
Catalog No.	Formulation	Size
V8376-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V8376-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V8376SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

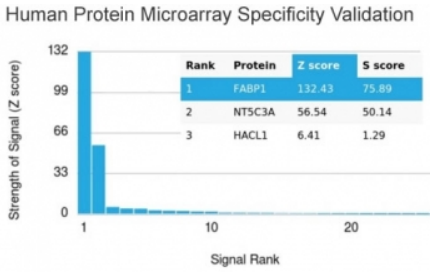
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	FABP1/3482
Purity	Protein G affinity chromatography
UniProt	P07148
Localization	Cytoplasmic and Nuclear
Applications	Western Blot : 1-2ug/ml Immunohistochemistry (FFPE) : 1-2ug/ml for 30 min at RT
Limitations	This FABP1 antibody is available for research use only.



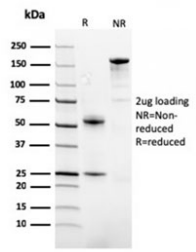
FABP1 Antibody - Microarray Validated WB. Western blot testing of human kidney lysate with FABP1 antibody (clone FABP1/3482). Predicted molecular weight: ~14 kDa.



FABP1 Antibody - Microarray Validated Immunohistochemistry. IHC staining of FFPE human liver carcinoma with FABP1 antibody (clone FABP1/3482). 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 Microarray Validated Clone FABP1/3482. Analysis of the HuProt(TM) microarray containing more than 19,000 full-length human proteins was performed using FABP1 antibody clone FABP1/3482. The antibody demonstrates strongest binding to FABP1 with a Z-score of 132.43 and an S-score of 75.89, showing clear separation from other proteins on the array, including NT5C3A and HACL1. These data support the high specificity of clone FABP1/3482 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 (clone FABP1/3482) as confirmation of integrity and purity.

Description

FABP1 Antibody Microarray Validated Clone FABP1/3482 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 highly expressed in hepatocytes and plays a central role in intracellular transport and metabolism of long chain fatty acids. FABP1 belongs to the fatty acid binding protein family, a group of small cytoplasmic proteins that regulate lipid trafficking and lipid-mediated signaling pathways.

Liver fatty acid binding protein contains a characteristic beta barrel structure that forms a hydrophobic ligand binding pocket. This structure enables FABP1 to bind long chain fatty acids, bile acids, eicosanoids, and other hydrophobic ligands, facilitating their solubilization and transport within the cytoplasm. In hepatocytes, FABP1 participates in fatty acid uptake, beta oxidation, triglyceride synthesis, and regulation of lipid homeostasis. It also contributes to protection against lipotoxicity by buffering excess intracellular fatty acids.

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

Clone FABP1/3482 has been validated using a human protein microarray platform containing thousands of full-length

human proteins, supporting high target specificity for FABP1 with minimal cross-reactivity. Microarray validation provides additional confidence in antibody selectivity for applications involving hepatic biology and lipid metabolism research. FABP1 Antibody Microarray Validated Clone FABP1/3482 is a mouse monoclonal antibody suitable for detecting Liver fatty acid binding protein expression in relevant research applications.

Researchers interested in a broadly validated FABP1 antibody for lipid metabolism and fatty acid transport studies may also benefit from our HuProt-validated FABP1 antibody clone FABP1/3487, supported by western blot, immunohistochemistry, and protein microarray specificity data.

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 microarray validated clone FABP1/3482.

Storage

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