

FABP5 Antibody / Fatty Acid Transport and Metabolism Marker [clone FABP5/3750] (V7766)

| Catalog No. | Formulation | Size |
|----------------|--|--------|
| V7766-100UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 100 ug |
| V7766-20UG | 0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide | 20 ug |
| V7766SAF-100UG | 1 mg/ml in 1X PBS; BSA free, sodium azide free | 100 ug |

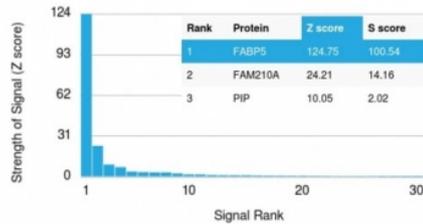
Bulk quote request

| | |
|---------------------------|--|
| Availability | 1-3 business days |
| Species Reactivity | Human |
| Format | Purified |
| Host | Mouse |
| Clonality | Monoclonal (mouse origin) |
| Isotype | Mouse IgG2a, kappa |
| Clone Name | FABP5/3750 |
| Purity | Protein G affinity chromatography |
| UniProt | Q01469 |
| Localization | Nuclear, cytoplasmic |
| Applications | Immunohistochemistry (FFPE) : 1-2ug/ml Western Blot : 1-2ug/ml |
| Limitations | This FABP5 Antibody / Fatty Acid Transport and Metabolism Marker is available for research use only. |



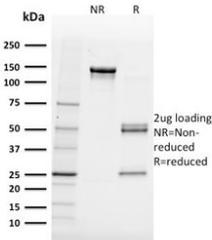
FABP5 Antibody HeLa WB. Western blot analysis of human HeLa cell lysate using FABP5 Antibody / Fatty Acid Transport and Metabolism Marker. A strong band is detected at approximately 15 kDa, consistent with the predicted molecular weight of Fatty acid-binding protein 5 / FABP5. The observed signal aligns with the established role of FABP5 in intracellular fatty acid trafficking, epithelial cell metabolism, and lipid-associated signaling pathways in proliferative cell populations.

Human Protein Microarray Specificity Validation

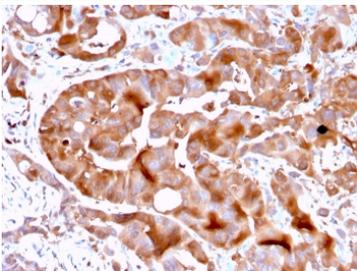


Analysis of HuProt(TM) microarray containing more than 19,000 full-length human proteins using FABP5 antibody (clone FABP5/3750). These results demonstrate the foremost specificity of the FABP5/3750 mAb.

Z- and S- score: The Z-score represents the strength of a signal that an antibody (in combination with a fluorescently-tagged anti-IgG secondary Ab) produces when binding to a particular protein on the HuProt(TM) array. Z-scores are described in units of standard deviations (SD's) above the mean value of all signals generated on that array. If the targets on the HuProt(TM) are arranged in descending order of the Z-score, the S-score is the difference (also in units of SD's) between the Z-scores. The S-score therefore represents the relative target specificity of an Ab to its intended target.



SDS-PAGE analysis of purified, BSA-free FABP5 antibody (clone FABP5/3750) as confirmation of integrity and purity.



FABP5 Antibody Liver IHC. Immunohistochemistry analysis of FFPE human liver tissue stained with FABP5 Antibody / Fatty Acid Transport and Metabolism Marker. Hepatocyte populations demonstrate moderate to strong cytoplasmic HRP-DAB brown staining for Fatty acid-binding protein 5 / FABP5, consistent with the known involvement of FABP5 in intracellular lipid transport, fatty acid handling, and hepatic metabolic regulation. Hematoxylin counterstain highlights nuclei in blue. HIER: boil tissue sections in pH9 10 mM Tris with 1 mM EDTA for 10-20 min followed by cooling prior to staining.

Description

Fatty acid-binding protein 5 (FABP5) is a small cytoplasmic lipid-binding protein involved in intracellular fatty acid trafficking, lipid signaling, and metabolic regulation in epithelial, neural, immune, and tumor-associated cell populations. FABP5 Antibody / Fatty Acid Transport and Metabolism Marker is useful for studying cellular lipid handling, epidermal differentiation, cancer metabolism, and fatty acid-dependent signaling pathways. FABP5 belongs to the fatty acid-binding protein family and is highly expressed in skin, keratinocytes, brain, liver, macrophages, and multiple epithelial-derived tumors.

FABP5 antibody, also known as Epidermal fatty acid binding protein antibody or E-FABP antibody in the literature, recognizes a cytoplasmic fatty acid transport protein that binds long-chain fatty acids and hydrophobic ligands within the intracellular environment. FABP5 participates in transport of fatty acids to metabolic and signaling pathways involved in beta-oxidation, membrane synthesis, inflammatory signaling, and nuclear receptor activation. The protein has been linked to PPAR signaling pathways and regulation of cellular responses to metabolic stress, differentiation cues, and lipid availability.

FABP5 is particularly well known for its role in epidermal biology and keratinocyte metabolism. Strong expression is observed in skin and epithelial tissues where FABP5 contributes to cutaneous lipid homeostasis, barrier function, and epidermal differentiation. Elevated FABP5 expression has additionally been associated with psoriasis, inflammatory skin disease, wound healing responses, and epithelial stress signaling. In cancer biology, FABP5 has attracted attention as a regulator of tumor metabolism, proliferation, migration, and metastatic progression in breast, prostate, colorectal, and squamous carcinomas. Increased FABP5 expression has been linked to aggressive tumor phenotypes and altered lipid utilization programs in malignant cells.

Beyond epithelial tissues, FABP5 is also expressed in brain and immune-associated cell populations where it contributes

to neural lipid signaling, inflammatory responses, and cellular metabolic adaptation. The protein has been implicated in macrophage activation, neuroinflammatory signaling, and regulation of oxidative stress pathways. Due to its broad biological importance, FABP5 remains an important research target in metabolism, dermatology, oncology, immunology, and neurobiology studies.

FABP5 Antibody / Fatty Acid Transport and Metabolism Marker clone FABP5/3750 is supported by western blot, immunohistochemistry, and HuProt microarray specificity validation data. Western blot analysis demonstrates the expected low molecular weight FABP5 band in epithelial and proliferative cell samples, while immunohistochemistry supports tissue-specific expression analysis in metabolically active tissues. The included HuProt microarray specificity validation data further supports selective target recognition suitable for studies involving lipid metabolism, epidermal biology, and cancer-associated metabolic signaling pathways.

Explore additional metabolism-associated targets in our [Metabolism Antibodies page](#) featuring markers involved in fatty acid transport, lipid signaling, mitochondrial energetics, and cellular metabolic regulation.

Application Notes

Optimal dilution of the FABP5 Antibody / Fatty Acid Transport and Metabolism Marker should be determined by the researcher.

Immunogen

Recombinant full length human protein was used as the immunogen for the FABP5 antibody.

Storage

Store the FABP5 antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Epidermal fatty acid binding protein antibody, E-FABP antibody, Psoriasis-associated fatty acid-binding protein antibody, Keratinocyte fatty acid transport antibody, FABP5 metabolism marker antibody