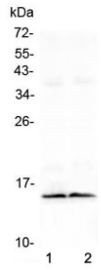
FABP3 Antibody (cardiac) (RQ4456)

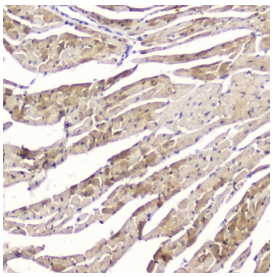
Catalog No.	Formulation	Size
RQ4456	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

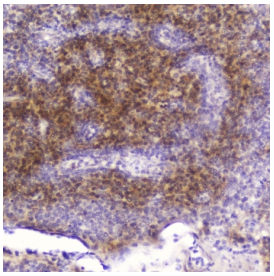
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P05413
Localization	Cytoplasm
Applications	Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 1-2ug/ml Direct ELISA: 0.1-0.5ug/ml (recombinant human protein)
Limitations	This FABP3 antibody is available for research use only.



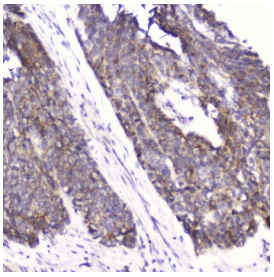
FABP3 Antibody Mouse Cardiac WB. Western blot testing of two lots of mouse heart lysate with FABP3 antibody at 0.5ug/ml. Predicted molecular weight ~15 kDa.



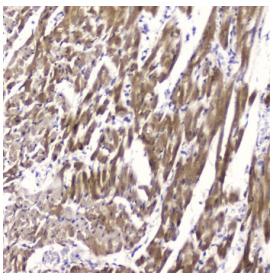
FABP3 Antibody Mouse Cardiac Tissue IHC. Immunohistochemistry testing of FFPE mouse heart tissue with FABP3 antibody at 2ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



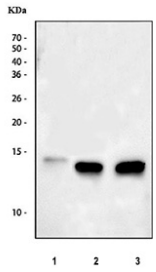
FABP3 Antibody Tonsil IHC. Immunohistochemistry testing of FFPE human tonsil tissue with FABP3 antibody at 2ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



FABP3 Antibody Esophageal Squamous Cell Carcinoma IHC. Immunohistochemistry testing of FFPE human esophageal squamous cell carcinoma with FABP3 antibody at 2ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



FABP3 Antibody Rat Cardiac Tissue IHC. Immunohistochemistry testing of FFPE rat heart tissue with FABP3 antibody at 2ug/ml. HIER: boil tissue sections in pH6, 10mM citrate buffer, for 10-20 min followed by cooling at RT for 20 min.



Western blot testing of 1) human Caco-2, 2) rat heart and 3) mouse heart tissue lysate with FABP3 antibody at 0.5ug/ml. Predicted molecular weight ~15 kDa.

Description

FABP3 antibody detects Heart-type fatty acid binding protein, a small cytoplasmic protein involved in the transport and metabolism of long-chain fatty acids. The UniProt recommended name is Fatty acid-binding protein, heart (FABP3). This protein plays a vital role in cardiac energy metabolism by facilitating the intracellular trafficking of fatty acids to sites of oxidation, storage, or membrane synthesis.

Functionally, FABP3 antibody identifies a 133-amino-acid cytoplasmic lipid chaperone abundantly expressed in cardiac and skeletal muscle. FABP3 binds long-chain fatty acids, acyl-CoA, and other hydrophobic ligands with high affinity, maintaining lipid solubility and availability for mitochondrial ÃŽÂ²-oxidation. By buffering intracellular fatty acid

concentrations, FABP3 supports efficient energy production and prevents lipotoxic stress in metabolically active tissues. It also interacts with peroxisome proliferator-activated receptors (PPARs), influencing gene expression linked to lipid metabolism and energy homeostasis.

The FABP3 gene is located on chromosome 1p33-p32 and is highly expressed in myocardium, slow-twitch skeletal muscle fibers, and to a lesser extent in neurons. Expression levels increase in response to energy demand, ischemic stress, and metabolic adaptation, highlighting its role as a marker of myocardial injury and oxidative metabolism. FABP3 functions as part of a family of fatty acid-binding proteins with distinct tissue distributions and substrate preferences.

Pathologically, elevated FABP3 levels in plasma serve as an early biomarker for acute myocardial infarction and cardiac ischemia, often rising before troponins. Abnormal expression is also associated with metabolic syndromes, neurodegenerative diseases, and cardiomyopathies linked to disrupted lipid utilization. Research using FABP3 antibody supports studies in cardiac metabolism, ischemic injury, and lipid signaling.

FABP3 antibody is validated for use in relevant research applications to detect heart-type fatty acid binding protein and investigate lipid transport and metabolic regulation in muscle tissues. NSJ Bioreagents provides FABP3 antibody reagents optimized for studies in cardiovascular biology, metabolism, and cellular lipid handling.

Explore our FABP3 Antibody page for additional western blot, immunohistochemistry, and microarray specificity validation data supporting studies of myocardial lipid transport and oxidative metabolism.

Application Notes

Optimal dilution of the FABP3 antibody should be determined by the researcher.

Immunogen

Human Cardiac FABP recombinant protein (amino acids V2-A133) was used as the immunogen for the FABP3 antibody.

Storage

After reconstitution, the FABP3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

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