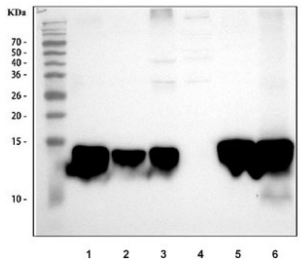
FABP Antibody Rabbit Polyclonal (R31902)

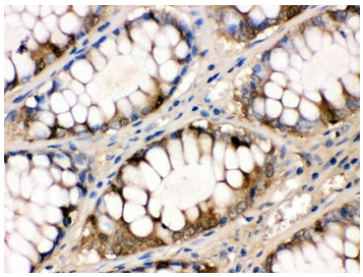
Catalog No.	Formulation	Size
R31902	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

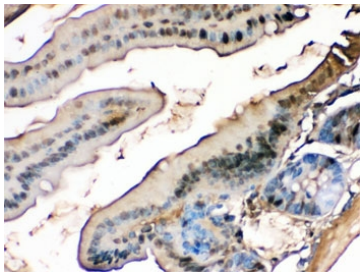
Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat, Monkey, Chicken
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	P07148
Localization	Nuclear, cytoplasmic
Applications	Western Blot : 0.5-1ug/ml Immunohistochemistry (FFPE) : 0.5-1ug/ml
Limitations	This FABP antibody is available for research use only.



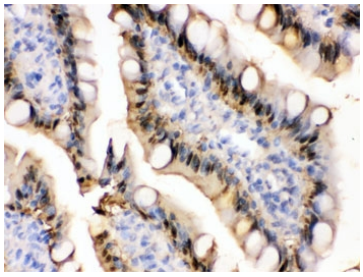
Western blot analysis of FABP antibody in rodent tissues. Rat liver (lane 1), rat intestine (lane 2), rat RH35 cells (lane 3), rat PC-12 cells (lane 4), mouse liver (lane 5), and mouse small intestine (lane 6) lysates were analyzed using FABP antibody rabbit polyclonal. The predicted molecular weight of Liver fatty acid binding protein is approximately 14 kDa. A strong band is observed near 14 kDa in rat and mouse liver samples, consistent with high FABP1 expression in hepatocytes. Clear bands are also detected in rat and mouse intestinal tissues, reflecting known expression in enterocytes. Signal in RH35 cells is present and consistent with hepatic origin, while PC-12 cells show minimal to low expression. The observed band pattern aligns with the expected tissue distribution of FABP1.



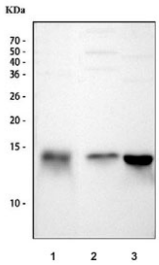
FABP Antibody Rabbit Polyclonal Intestinal Cancer IHC. Immunohistochemistry of FABP antibody in human intestinal cancer tissue. FFPE human intestinal carcinoma was stained with FABP antibody rabbit polyclonal. Predominant cytoplasmic HRP-DAB brown staining is observed in gland-forming tumor epithelial cells, consistent with Liver fatty acid binding protein expression in intestinal epithelium. Stromal cells show minimal staining. Heat induced epitope retrieval was performed by boiling paraffin sections in pH 6, 10 mM citrate buffer for 20 minutes followed by cooling prior to antibody incubation.



FABP Antibody Rabbit Polyclonal Mouse Intestine Immunohistochemistry. IHC testing of FFPE mouse intestine with FABP antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



FABP Antibody Rabbit Polyclonal Rat Intestine Immunohistochemistry. IHC testing of FFPE rat intestine with FABP antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



FABP Antibody Rabbit Polyclonal WB. Western blot testing of 1) human HCCT, 2) monkey liver and 3) chicken liver tissue lysate with FABP antibody. Predicted molecular weight: ~14 kDa.

Description

FABP Antibody Rabbit Polyclonal recognizes Liver fatty acid binding protein, also known as FABP1, a cytoplasmic lipid chaperone encoded by the FABP1 gene on chromosome 2p11.2. Liver fatty acid binding protein is abundantly expressed in hepatocytes and is a member of the fatty acid binding protein family, which regulates intracellular trafficking of long chain fatty acids and other hydrophobic ligands. FABP1 is sometimes referred to as L-FABP and plays a central role in hepatic lipid metabolism and transport.

Liver fatty acid binding protein belongs to a conserved family of small approximately 14 kDa cytoplasmic proteins characterized by a beta barrel structure that forms a hydrophobic ligand binding pocket. FABP1 binds long chain fatty acids, eicosanoids, bile acids, and other lipophilic molecules, facilitating their intracellular solubilization and transport to specific metabolic pathways. In hepatocytes, FABP1 participates in fatty acid uptake, beta oxidation, triglyceride synthesis, and regulation of lipid mediated signaling pathways.

In normal tissues, FABP1 expression is highest in liver, where it is strongly localized to the cytoplasm of hepatocytes. Lower levels of expression have been reported in kidney proximal tubule epithelium and small intestinal enterocytes. Because of its restricted and abundant hepatic expression, FABP Antibody Rabbit Polyclonal is frequently used in research to identify hepatocellular differentiation and to study metabolic regulation in liver tissue. Cytoplasmic staining in

hepatocytes is the expected localization pattern.

Altered FABP1 expression has been associated with metabolic disorders, fatty liver disease, and hepatocellular carcinoma. Changes in FABP1 levels have been investigated in the context of lipid accumulation, oxidative stress, and liver injury. FABP1 also serves as a potential biomarker in studies of liver function and hepatocyte integrity. FABP Antibody Rabbit Polyclonal (liver form) is suitable for detecting Liver fatty acid binding protein expression in relevant research applications focused on hepatic biology and lipid metabolism.

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 FABP antibody should be determined by the researcher.

Immunogen

Amino acids KYQLQSQENFEAFMKAIGLPEELIQKGKDIK of human FABP were used as the immunogen for the FABP antibody rabbit polyclonal.

Storage

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