

Product Specification Sheet

**Human Fatty acid binding protein 2 (FABP2/I-FABP, Intestine)**

□ **Cat #** FABP24-R-25      Recombinant Human Fatty acid binding protein 2 (FABP2/I-FABP, Intestine), purified      **Size:** 25 ug

Fatty acids are important for general cellular metabolism. A number of proteins have been implicated in the transport and storage of fatty acid. **FABPs (fatty acid binding proteins)** are a group of cytoplasmic, small mol wt (14-15 kDa) and proteins that has widespread tissue distribution. FABPs are quite abundant (3-5% of total cellular protein). At least 7 FABPs, FABP1-7, have been cloned and characterized from various tissues. FABPs can bind long-chain fatty acid, fatty-acid acyl-CoA and acyl-L-carnitine. Several different isoform of FABP have been identified and generally referred to by tissue type (liver, heart, intestine, adipocyte, kidney, brain etc; protein designated as H-FABP indicates that it is heart type). However, expression of these isoform is not exclusive and more than one isoform can be found in a given cell or tissue. Three main types of FABPs that were initially discovered in the heart (FABP-H), liver (FABP-L), and intestine (FABP-I) are not exclusive these tissues and show considerable differences at the amino acid level (~30% identity). Other FABPs recently detected in adipocyte, kidney, and brain show a high degree of sequence homology among each other and with other FABPs. FABPs are also known as mammary derived growth inhibitor (MDGI), adipocyte lipid binding protein (ALBP), Myelin protein P2 homolog, P2 adipocyte protein, 422 protein (P15). Human FABP-H or adipocyte is 132-aa protein (chromosome 2p11) Rat and mouse adipocyte-FABPs are 133 aa single polypeptide chains.

Intestinal FABP (FABP2) gene has a polymorphism at codon 54 that identified an alanine-encoding allele and a threonine-encoding allele. Thr-54 protein is associated with increased fat oxidation and insulin resistance. High serum levels of FABP2 is ulcerative colitis indicates ileitis. FABP2 is has part in triglyceride-rich lipoprotein synthesis. FABP2 binds saturated long-chain fatty acids with a high affinity, but binds with a lower affinity to unsaturated long-chain fatty acids. FABP2 helps maintain energy homeostasis by functioning as a lipid sensor.

**Source of Antigen and Antibodies**

Human FABP2 protein was expressed as NT-his tag fusion protein in E. coli and purified (>95%, 132-aa, ~17.3 kda). Purified proteins are supplied in 20 mM Tris, pH 8.0, 10% Glycerol (see lot sp conc on the vial).

**Human FABP2 Sequence**

MGSSHHHHH SGLVPRGSH MAFDSTWKVD RSENYDKFME  
KMGVNIKVRK LAAHDNLKLT ITQEGNKFTV KESSAFRNIE  
VVFELGVTFN YNLADGTELR GTWSLEGKLN IGFKRTDNG  
NELNTVREII GDELVQTYVY EGVEAKRIFK KD.

**Recommended Usage**

**ELISA:** use as standards or for coating at 1-10 ug/ml.

**Western:** load 100-250 ng/protein well and detect with specific antibodies.

**Stability:** 6-12 months at -20oC or below.

**Shipping:** 4oC for solutions and room temp for powder.

**General References:** (1) Bernlohr DA et al (1984) PNAS 81, 5468; Phillips M et al (1986) JBC 261, 10821; Hunt CB et al (1986) PNAS 83, 3786; Cook JS et al (1988) PNAS 85, 2949; Xu Z et al (1993) JBC 268, 7874; Baxa CA et al (1989) Biochem. 28, 8683; Peeter

RA et al (1991) Biochem J 276, 203-207; (2) Bas NM (1988) Int Rev Cytol 111, 143-184; Bass Nm et al (1989) BBRC 137, 929-935; Glatz JFC et al (1989) Mol Cell Biochem. 88, 37-44; Matarese V et al (1988) JBC 263, 14544-14551

*All products are for in vitro research use only.*

**Related items**

Catalog#	ProdDescription
FABP11-A	Anti-Human (heart/adipocyte) Fatty acid binding protein (FABP) IgG #1, aff pure
FABP11-C	Human Heart Fatty acid binding protein (FABP) purified, WB +Ve control
FABP11-N-25	Human Fatty acid binding protein (FABP),
FABP11-P	Human FABP (heart/adipocyte) Control/blocking peptide #1
FABP11-S	Anti-Human FABP (heart/adipocyte) antiserum
FABP12-C	Mouse Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP12-N-100	Mouse Heart Fatty acid binding protein (FABP)
FABP12-N-25	Mouse Heart Fatty acid binding protein (FABP)
FABP12-S	Anti-Rat FABP (FABP/FABP4/ALBP/A-FABP)
FABP13-C	Rat Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP13-M	Monoclonal Anti-Human heart Fatty acid binding protein (FABP) IgG # 3, aff pure
FABP13-N-100	Rat Heart Fatty acid binding protein (FABP)
FABP13-N-25	Rat Heart Fatty acid binding protein (FABP)
FABP14-C	Monkey Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP14-N-25	Monkey Fatty acid binding protein (FABP)
FABP15-C	Rabbit Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP15-N-25	Rabbit Fatty acid binding protein (FABP)
FABP16-C	Dog Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP17-C	Pig Heart Fatty acid binding protein (FABP) purified WB +Ve control
FABP17-N-25	Pig Fatty acid binding protein (FABP) Cardiac
FABP18-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 1 Liver (FABP1/L-FABP/Z-FABP), purified
FABP21-C	Mouse Liver Fatty acid binding protein (FABP) purified WB +Ve control
FABP21-N-25	Mouse Fatty acid binding protein (FABP-L)
FABP22-C	Rat Liver Fatty acid binding protein (FABP) purified WB +Ve control
FABP22-N-25	Rat Fatty acid binding protein (FABP-L) Liver
FABP23-N-25	Dog Fatty acid binding protein (FABP), Cardiac
FABP24-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 2 (FABP2/I-FABP, Intestine), purified
FABP35-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 3 (FABP3/M-FABP/H-FABP, heart), purified
FABP45-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 4 (FABP4/A-FABP/ALBP, adipocyte), purified
FABP55-R-25	Recombinant (E.coli) Human Fatty acid binding protein 5 (FABP5/E-FABP/PA-FABP, Psoriasis-associated), purified
FABP65-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 6 (FABP6/I-FABP/I-BABP/ILBP3, Intestinal bile acid-binding protein), purified
FABP75-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 7 (FABP7/B-FABP/MRG/FABPB,
FABP85-R-25	Recombinant, His-tag (E.coli) Human Fatty acid binding protein 8

FABN24-R-25      130122A