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Product Specification Sheet

Fatty Acid Binding Protein-Heart/Adipocyte (FABP) Antibodies

Cat # FABP13-M	Mouse Monoclonal Anti-Human FABP-H IgG # 3, aff pure	**Size**:	100 ug
Cat # FABP11-C	Human heart FABP protein control for Western	**Size**:	100 ul
Cat # FABP13-C	Rat heart FABP protein control for Western	**Size**:	100 ul

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.

Source of Antigen and Antibodies

Antigen	Purified human heart FABP protein
Ab Host/type	Mouse, Monoclonal Protein A/G purified Ig G, (**Cat # FABP13-M**) supplied in PBS, pH 7.4, 0.05% azide
2-ab	**Goat Anti-mouse IgG-HRP conjugate** Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as –ve control

FABP protein was purified (>95%) from human heart (#FABP11-C) or rat heart **(#FABP13-C**). For Western blot +ve control (**Cat # FABP11-C or FABP13-C**) is supplied in SDS-PAGE sample buffer (reduced). Load 10 ul/lane of **FABP11**-C for good visibility with antibody Cat # **FABP13**-M or other appropriate antibodies. Store at –20oC in suitable size aliquots. SDS may crystallize in cold conditions. It should redissolve by warming before taking it from the stock. It should be heated once prior to loading on gels. If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **FABP11**-C solution prior to heating and loading on gels. This preparation is not biologically active. It is not suitable for ELISA or other applications where native protein is required. Do not freeze, thaw, or heat repeatedly

Recommended Usage

Western Blot - It is recommended that researchers tests antibodies, controls, and determine their own optimal dilutions. A preliminary antibody dilution of 1K-5K for Western; 1:500-1K for **histochemistry** and 10K-50K for **ELISA** can be used.

Antibody crossreactivity and specificity

Antibody # FABP13-M reacts with human heart FABP. Antibody crossreactivity in various species and isoform has not been studies. Purified human FABP-H protein is available (Cat # FABP11-C) to study antibody crossreactivity with human FABP-H. Purified rat heart FABP protein for Western (#FABP13-C) is also available.

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

Form & Storage of Antibodies/Peptide Control

Affinity pure IgG

100 ug/100 ul solution — 50 ug/50ul lyophilized powder

contains PBS and 0.05% sodium azide

Reconstitute powder in the original vol. of water

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at –20C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

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

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

All products are for in vitro research use only.

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