

Product Specification Sheet

Fatty Acid Binding Protein Adipocyte (FABP/FABP4/ALBP/A-FABP) Antibodies

Cat # FABP12-S Rabbit Anti-Rat FABP (FABP/FABP4/ALBP/A-FABP) peptide antiserum # 2 **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	20-aa peptide of rat adipocyte FABP (ALBP or A-FABP or FABP4; gene accession # P70623; 132 aa); Designated (FABP12-P or control peptide). epitope location ~ C-terminus
Ab Host/type	Rabbit, polyclonal Unpurified Antiserum (Cat # FABP12-S)
2-ab	Goat Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
-ve control	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

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 antisera, 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

Rat FABP12-P peptide sequence homology has 90% homology with mouse A-FABP/adipocyte P2, 85% homology with mouse myelin P2 protein homolog, 85% with rabbit aP2, 80% with human A-FABP, 65% with bovine AFABP, 55% with human P2 protein homolog, and 55% with human Epidermal FABP/Psoriasis-associated binding protein homolog (PA-FABP), and 57% with rat testis lipid binding protein, and 45% with mouse PA-FABP. Antibody crossreactivity in various species and isoforms has not been studied. Purified human FABP-H protein is available (Cat # FABP11-C) to study antibody crossreactivity with human FABP-H.

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

Antiserum (unpurified)

00ul solution lyophilized powder
Supplied in Buffer: 0.05% azide

Reconstitute powder in 100 ul PBS

Storage

Short-term: unopened, undiluted liquid vials at -20OC and powder at 4oC or -20oC..

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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