ALPHA DIAGNOSTIC INTERNATIONAL

Product Specification Sheet

Fatty Acid Binding Protein, Heart (FABP, H-FABP, FABP3)

Cat # FABP23-N-25 **Dog** heart FABP protein, 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.

Cardiac fatty acid-binding protein (FABP) is a small cytosolic protein that is abundant in the heart and skeletal muscle. Following cardiac muscle injury it appears in the blood as early as 1.5 h, peaks around 6 h and returns to baseline values in 24 h. Therefore, cardiac FABP serves as a useful biomarker for detection of heart disease.

Source of Antigen and Antibodies

FABP protein were purified (>95%, ~15 Kda) from the cardiac/hearts of various species. The heart FABPs are suitable for reactivity with appropriate antibodies or use as control in Western. Purified proteins are supplied in 50% Glycerol, 5 mM Sodium Phosphate, 75 mM NaCl, 0.025% NaN3 (pH 7.2) at concn of 1 mg/ml (see lot sp conc on the vial).

ADI also have the purified FABP proteins in PBS or other buffers for ELISA or standards. Please contact ADI for details.

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.

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

Cat # FABP11-C (**human** heart, mol wt ~15 kda).

Cat # FABP12-C (**mouse** heart, mol wt ~15 kda).

Cat # FABP13-C (**rat** heart, mol wt ~15 kda).

Cat # FABP14-C (**monkey** heart, mol wt ~15 kda).

Cat # FAB16-C (**rabbit** heart, mol wt ~15 kda).

Cat # FABP16-C (**dog** heart, mol wt ~15 kda).

Cat # FABP17-C (**pig** heart, mol wt ~15 kda).FABP11-C-

FABN23-N-25 110628A

Alpha Diagnostic Intl Inc., 6203 Woodlake Center Dr, San Antonio, TX 78244, USA; **Email**: service@4adi.com
☎ (800) 786-5777; (210) 561-9515; **Fax**: (210) 561-9544; **Web Site**: www.4adi.com