# FABP5/E-FABP Protein, Mouse (His)

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| **Cat. No.:** | HY-P79398 |
| **Synonyms:** | Fatty acid-binding protein 5; Fabp5; Epidermal-type fatty acid-binding protein; E-FABP; Fatty acid-binding protein, epidermal; Keratinocyte lipid-binding protein; Psoriasis-associated fatty acid-binding protein homolog; PA-FABP; Fabpe; Klbp; Mal1 |
| **Species:** | Mouse |
| **Source:** | E. coli |
| **Accession:** | Q05816 (M1-Q135) |
| **Gene ID:** | 16592 |
| **Molecular Weight:** | Approximately 16 kDa |

## PROPERTIES

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| **AA Sequence** | M A S L K D L E G K W R L M E S H G F E E Y M K E L G V G L A L R K M A A M A K<br>P D C I I T C D G N N I T V K T E S T V K T T V F S C N L G E K F D E T T A D G<br>R K T E T V C T F Q D G A L V Q H Q Q W D G K E S T I T R K L K D G K M I V E C<br>V M N N A T C T R V Y E K V Q |
| **Biological Activity** | Data is not available. |
| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm filtered solution of 20 mM PB, 150 mM NaCl, pH 7.4. |
| **Endotoxin Level** | <1 EU/μg, determined by LAL method. |
| **Reconsititution** | It is not recommended to reconstitute to a concentration less than 100 μg/mL in $ddH_2O$. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose). |
| **Storage & Stability** | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| **Shipping** | Room temperature in continental US; may vary elsewhere. |

## DESCRIPTION

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| **Background** | FABP5, also known as E-FABP, functions as an intracellular carrier for long-chain fatty acids and related active lipids, including endocannabinoids, thereby regulating the metabolism and actions of the ligands they bind. Beyond its role in cytosolic transport, FABP5 selectively delivers specific fatty acids from the cytosol to the nucleus, activating nuclear receptors. Notably, it delivers retinoic acid to the nuclear receptor peroxisome proliferator-activated receptor delta, promoting proliferation and survival. FABP5's involvement extends to serving as a synaptic carrier of endocannabinoids at central synapses, thereby controlling retrograde endocannabinoid signaling. Additionally, FABP5 modulates inflammation |

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| | by regulating PTGES induction through NF-kappa-B activation and prostaglandin E2 (PGE2) biosynthesis during inflammatory processes. Its potential role in keratinocyte differentiation is also suggested. |



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