## MedChemExpress

## Product Data Sheet

## FABP5 Protein, Human

Cat. No.:	HY-P75214
Synonyms:	Fatty acid-binding protein 5; E-FABP; PA-FABP; FABP5
Species:	Human
Source:	E. coli
Accession:	Q01469 (M1-E135)
Gene ID:	2171
Molecular Weight:	Approximately 15.2 kDa

PROPERTIES	
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris, pH 8.0. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 $\mu\text{g}/\text{mL}$ in ddH_2O.
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	
Background	FABP5 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. In addition to its role in cytosolic transport, FABP5 selectively delivers specific fatty acids from the cytosol to the nucleus, where they activate nuclear receptors. Notably, it delivers retinoic acid to the nuclear receptor peroxisome proliferator-activated receptor delta, promoting proliferation and survival. FABP5 may also serve as a synaptic carrier of endocannabinoids at central synapses, thereby controlling retrograde endocannabinoid signaling. Furthermore, it modulates inflammation by regulating PTGES induction via NF-kappa-B activation and prostaglandin E2 (PGE2) biosynthesis during inflammatory processes. Additionally, FABP5's potential involvement in keratinocyte differentiation has been suggested.

## Caution: Product has not been fully validated for medical applications. For research use only.

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