

FABP3 Protein, Human (His)

Cat. No.:	HY-P70256
Synonyms:	rHuFatty acid-binding protein/FABP3, His; Fatty Acid-Binding Protein Heart; Fatty Acid-Binding Protein 3; Heart-Type Fatty Acid-Binding Protein; H-FABP; Mammary-Derived Growth Inhibitor; MDGIMuscle Fatty Acid-Binding Protein; M-FABP; FABP3; FABP11; MDGI
Species:	Human
Source:	E. coli
Accession:	P05413 (V2-A133)
Gene ID:	2170
Molecular Weight:	Approximately 15.0 kDa

PROPERTIES

AA Sequence	V D A F L G T W K L V D S K N F D D Y M K S L G V G F A T R Q V A S M T K P T T I I E K N G D I L T L K T H S T F K N T E I S F K L G V E F D E T T A D D R K V K S I V T L D G G K L V H L Q K W D G Q E T T L V R E L I D G K L I L T L T H G T A V C T R T Y E K E A
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of PBS, pH 6.5.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. 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

Background	<p>Fatty acid binding proteins (FABPs) are intracellular proteins and exhibit high affinity for small lipophilic ligands. FABP-3 is expressed in the skeletal muscle, heart, brain and brown adipose tissue. And its expression in skeletal muscles is elevated on consumption of a high fat diet. The gene encoding it is localized on human chromosome 1p35.</p> <p>FABP3 is a newly introduced plasma marker of acute myocardial infarction (AMI). FABP3 is identified as a novel selective autophagy substrate of OPTN (optineurin, a macroautophagy/autophagy receptor, is found to play a pivotal role in selective autophagy, coupling autophagy with bone metabolism). FABP3 promotes adipogenesis and inhibits osteogenesis of MSCs. Knockdown of FABP3 alleviates bone loss in optn^{-/-} mice and aged mice^{[1][2]}.</p>
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REFERENCES

- [1]. Seung-Min Lee, et al. FABP3-mediated membrane lipid saturation alters fluidity and induces ER stress in skeletal muscle with aging. Nat Commun. 2020 Nov 9;11(1):5661.
- [2]. Zheng-Zhao Liu, et al. Autophagy receptor OPTN (optineurin) regulates mesenchymal stem cell fate and bone-fat balance during aging by clearing FABP3. Autophagy. 2020 Nov 4;1-17.
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Caution: Product has not been fully validated for medical applications. For research use only.

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