FKTN Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702280
Synonyms:	Ribitol-5-phosphate transferase FKTN; Fukutin; Fukuyama-type congenital muscular dystrophy protein; Ribitol-5-phosphate transferase
Species:	Human
Source:	E. coli Cell-free
Accession:	O75072 (M1-Y461)
Gene ID:	2218
Molecular Weight:	56.5 kDa

PROPERTIES

AA Sequence	M S R I N K N V V L A L L T L T S S A F L L F Q L Y Y Y K H Y L S T K N G A G L S K S K G S R I G F D S T Q W R A V K K F I M L T S N Q N V P V F L I D P L I L E L I N K N F E Q V K N T S H G S T S Q C K F F C V P R D F T A F A L Q Y H L W K N E E G W F R I A E N M G F Q C L K I E S K D P R L D G I D S L S G T E I P L H Y I C K L A T H A I H L V V F H E R S G N Y L W H G H L R L K E H I D R K F V P F R K L Q F G R Y P G A F D R P E L Q Q V T V D G L E V L I P K D P M H F V E E V P H S R F I E C R Y K E A R A F F Q Q Y L D D N T V E A V A F R K S A K E L L Q L A A K T L N K L G V P F W L S S G T C L G W Y R Q C N I I P Y S K D V D L G I F I Q D Y K S D I I L A F Q D A G L P L K H K F G K V E D S L E L S F Q G K D D V K L D V F F F Y E E T D H M W N G G T Q A K T G K K F K Y L F P K F T L C W T E F V D M K V H V P C E T L E Y I E A N Y G K T W K I P V K T W D W K R S P P N V Q P N G I W P I S E W D E V I Q L Y
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
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 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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	FKTN protein plays a crucial role in catalyzing the transfer of a ribitol-phosphate from CDP-ribitol to the distal N-acetylgalactosamine of the phosphorylated O-mannosyl trisaccharide found in alpha-dystroglycan (DAG1). This enzymatic activity represents the initial step in the formation of the ribitol 5-phosphate tandem repeat, linking the phosphorylated O-mannosyl trisaccharide to the ligand binding moiety composed of repeats of 3-xylosyl-alpha-1,3-glucuronic acid-beta-1. FKTN is essential for maintaining the normal localization of POMGNT1 in Golgi membranes and ensuring its proper activity. Additionally, FKTN may participate in interacting with and reinforcing a large complex that encompasses both the external and internal muscle membranes. There is also a potential association with brain development.

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