MESDC2 Protein, Human (HEK293, His)

Cat. No.:	HY-P76492
Synonyms:	LRP chaperone MESD; LDLR chaperone MESD; KIAA0081; MESDM
Species:	Human
Source:	HEK293
Accession:	Q14696-1 (A34-K230)
Gene ID:	23184
Molecular Weight:	Approximately 27 kDa

PROPERTIES

AA Sequence	A E G S P G T P D E S T P P P R K K K K D I R D Y N D A D M A R L L E Q W E K D D D I E E G D L P E H K R P S A P V D F S K I D P S K P E S I L K M T K K G K T L M M F V T V S G S P T E K E T E E I T S L W Q G S L F N A N Y D V Q R F I V G S D R A I F M L R D G S Y A W E I K D F L V G Q D R C A D V T L E G Q V Y P G K G G G S K E K N K T K Q D K G K K K K E G D L K S R S S K E E N R A G N K
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, 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.
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	MESDC2 protein serves as a chaperone with specific roles in facilitating the folding of beta-propeller/EGF modules within the low-density lipoprotein receptor (LDLR) family. Beyond its involvement in LDLR folding, MESDC2 acts as a crucial modulator of the Wnt pathway by chaperoning the coreceptors LRP5 and LRP6 to the plasma membrane, influencing Wnt signaling (PubMed:17488095). In embryonic development, MESDC2 plays an essential role in specifying polarity and inducing mesoderm formation. Additionally, it contributes significantly to neuromuscular junction (NMJ) formation by promoting the cell-surface expression of LRP4 (By similarity). The protein may also regulate the phagocytosis of apoptotic retinal pigment epithelium (RPE) cells (By similarity). As a monomer, MESDC2 interacts with LRP5 and LRP6, preventing their aggregation and guiding them to the plasma membrane. Furthermore, MESDC2 interacts with LRP4, promoting glycosylation and cell-

	surface expression of LRP4 (By similarity).

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