LRRC32 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P70419
Synonyms:	rHuTransforming growth factor beta activator LRRC32/LRRC32, Fc; GARP; GARPGarpin; Garpin; D11S833E
Species:	Human
Source:	HEK293
Accession:	Q14392 (H20-N627)
Gene ID:	2615
Molecular Weight:	104-110.0 kDa

PROPERTIES

AA Sequence

H Q D K V P C K M V D K K V S C Q V L G L L Q V P S V L P P D T E T L D L S G N
Q L R S I L A S P L G F Y T A L R H L D L S T N E I S F L Q P G A F Q A L T H L
E H L S L A H N R L A M A T A L S A G G L G P L P R V T S L D L S G N S L Y S G
L L E R L L G E A P S L H T L S L A E N S L T R L T R H T F R D M P A L E Q L D
L H S N V L M D I E D G A F E G L P R L T H L N L S R N S L T C I S D F S L Q Q
L R V L D L S C N S I E A F Q T A S Q P Q A E F Q L T W L D L R E N K L L H F P
D L A A L P R L I Y L N L S N N L I R L P T G P P Q D S K G I H A P S E G W S A
L P L S A P S G N A S G R P L S Q L L N L D L S Y N E I E L I P D S F L E H L T
S L C F L N L S R N C L R T F E A R R L G S L P C L M L L D L S H N A L E T L E
L G A R A L G S L R T L L L Q G N A L R D L P P Y T F A N L A S L Q R L N L Q G
N R V S P C G G P D E P G P S G C V A F S G I T S L R S L S L V D N E I E L L R
A G A F L H T P L T E L D L S S N P G L E V A T G A L G G L E A S L E V L A L Q
G N G L M V L Q V D L P C F I C L K R L N L A E N R L S H L P A W T Q A V S L E
V L D L R N N S F S L L P G S A M G G L E T S L R R L Y L Q G N P L S C C G N G
W L A A Q L H Q G R V D V D A T Q D L I C R F S S Q E E V S L S H V R P E D C E
K G G L K N I N

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. 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	LRRC32, a crucial regulator of transforming growth factor beta (TGFB1, TGFB2, and TGFB3), plays a pivotal role in controlling TGF-beta activation by maintaining it in a latent state during extracellular storage. Specifically associating with the Latency-associated peptide (LAP), the regulatory chain of TGF-beta, LRRC32 exerts its regulatory influence on integrin-dependent TGF-beta activation. Notably, LRRC32 competes effectively with LTBP1 for LAP binding, further modulating TGF-beta activation. Its significance extends to the regulation of TGF-beta-1 (TGFB1) activation on the surface of activated regulatory T-cells (Tregs). Moreover, LRRC32's involvement is essential for epithelial fusion during palate development, where it regulates the activation of TGF-beta-3 (TGFB3). Interacting directly with TGFB1, TGFB2, and TGFB3, LRRC32's association with LAP regulates the activation of TGF-beta-1 and TGF-beta-3, highlighting its intricate role in fine-tuning TGF-beta signaling. Additionally, LRRC32 interacts with LAPTM4B, contributing to the reduction of TGFB1 production in regulatory T-cells.

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