

GARP&Latent TGF Beta 2 Complex Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P700857
Synonyms:	Garpin; GARP; LRRC32; D11S833E; GARP&Latent TGF B; GARP&TGF B; Cetermin; G-TSF; LAP; TGF-beta-2; TGF Beta 2; GARP&Latent TGF Beta 2
Species:	Human
Source:	HEK293
Accession:	Q14392 (H20-L628)&P61812 (L21-S414)
Gene ID:	2615&7042
Molecular Weight:	72-77 kDa(GARP) & 13 kDa & 46-48 kDa(Latent TGF Beta 2)

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
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.
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>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.</p>
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Caution: Product has not been fully validated for medical applications. For research use only.

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