GARP (G139N)&Latent TGF Beta Complex Protein, Human (HEK293, His-Avi)

Cat. No.:	HY-P77673
Synonyms:	LRRC32; GARP; LAP; TGF-beta-1; LRRC32&TGF-beta 1; LRRC32&TGFB1
Species:	Human
Source:	HEK293
Accession:	Q14392 (H20-L628, G139N)&P01137 (L30-S390)
Gene ID:	2615&7040
Molecular Weight:	75-80 kDa

PROPERTIES

Biological Activity	Immobilized Human GARP (G139N) &Latent TGF Beta 1 Complex, His Tag at 5μg/ml (100μl/well) on the plate. Dose response curve for Anti-GARP&Latent TGF Beta 1 Antibody, hFc Tag with the EC_{50} of 0.73μg/ml determined by ELISA.
Appearance	Solution.
Formulation	Supplied as a 0.22 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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