

GARP&Latent TGF beta Complex Protein, Human (Biotinylated, HEK293, His-Avi)

Cat. No.:	HY-P77675
Synonyms:	LRRC32; GARP; LAP; TGF-beta-1; LRRC32&TGF-beta 1; LRRC32&TGFB1
Species:	Human
Source:	HEK293
Accession:	Q14392 (H20-L628,GARP)&P01137 (L30-S390,Latent TGF bata 1)
Gene ID:	2615&7040
Molecular Weight:	(73-78) kDa (GARP)&13 kDa&(42-45) kDa (Latent TGF beta 1)

PROPERTIES

AA Sequence

HQDKVPCKMV	DKKVSCQVLG	LLQVPSVLP	DTETLDLSGN
QLRSILASPL	GFYALRHL	LSTNEISFLQ	PGAFQALTHL
EHLSLAHNRL	AMATALSAGG	LGPLPRVTS	DLSGNSLYSG
LLERLLGEAP	SLHTLSLAEN	SLTRLTRHTF	RDMPALEQLD
LHSNVLMDE	DGAFEGLPRL	THLNLSRNSL	TCISDFSLQQ
LRVLDLSCNS	IEAFQTASQP	QAEFQLTWLD	LRENKLLHFP
DLAALPRLIY	LNLSNNLIRL	PTGPPQDSKG	IHAPSEGWSA
LPLSAPSGNA	SGRPLSQLLN	LDLSYNEIEL	IPDSFLEHLT
SLCFLNLSRN	CLRTFEARRL	GSLPCLMLLD	LSHNALETLE
LGARALGSLR	TLLLQGNALR	DLPPYTFANL	ASLQRLNLQG
NRVSPCGGPD	EPGSPGCVAF	SGITSLRSLS	LVDNEIELLR
AGAFLHTPLT	ELDLSSNPGL	EVATGALGGL	EASLEVLAALQ
GNGLMVLQVD	LPCFICKRRL	NLAENRSLHL	PAWTQAVSLE
VLDLRNNSFS	LLPGSAMGGL	ETSLRRLYLQ	GNPLSCCGNG
WLA AQLHQGR	VDVDATQDLI	CRFSSQEEVS	LSHVRPEDCE
KGGLKNINL&	LSTCKTIDME	LVKRKRIEAI	RGQILSKLRL
ASPPSQGEVP	PGPLPEAVLA	LYNSTDRVA	GESAEPEPEP
EADYYAKEVT	RVL MVETHNE	IYDKFKQSTH	SIYMFFNTSE
LREAVPEPVL	LSRAELRLLR	LKLVKVEQHVE	LYQKYSNNSW
RYLSNRL LAP	SDSPEWLSFD	VTGVVRQWLS	RGGEIEGFRL
SAHCSCDSRD	NTLQVDINGF	TTGRRGDLAT	IHGMRPFLL
LMATPLERAQ	HLQSSRHRRR	LDTNYCFSST	EKNCCVRQLY
IDFRKDLGWK	WIHEPKGYHA	NFCLGPCPYI	WSLDTQYSKV
LALYNQHNP	ASAAPCCVPQ	ALEPLPIVYY	VGRKPKVEQL
SNMIVRSCKC	S		

Biological Activity

Immobilized Biotinylated Human GARP&Latent TGF beta Complex at 5 µg/mL (100µL/Well) on the plate. Dose response curve for Anti-GARP&TGF beta Antibody with the EC₅₀ of 44-45.8 ng/mL determined by ELISA.

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

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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