

## GARP&Latent TGF Beta-1 Complex Protein, Human (HEK293, His, Strep)

<b>Cat. No.:</b>	HY-P72636
<b>Synonyms:</b>	GARP&Latent TGF Beta-1 Complex Protein
<b>Species:</b>	Human
<b>Source:</b>	HEK293
<b>Accession:</b>	P01137&Q14392 (L30-S390&H20-N627)
<b>Gene ID:</b>	7040&2615
<b>Molecular Weight:</b>	10-14&35-50&85-95 kDa

### PROPERTIES

#### AA Sequence

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LSTCKTIDME   LVKRRKRIEAI   RGQILSKLRL   ASPPSQGEVP
PGPLPEAVLA   LYNSTRDRVA   GESAEPEPEP   EADYYAKEVT
RVLMEVETHNE  IYDKFKQSTH   SIYMFNTSE    LREAVPEPVL
LSRAELRLLR   LKLLKVEQHVE  LYQKYSNNSW   RYLSNRL LAP
SDSPEWLSFD   VTGVVRQWLS   RGGIEGFRL    SAHCSCDSRD
NTLQVDINGF   TTGRRGDLAT   IHGMNRPFL    LMATPLERAQ
HLQSSRHRRRA  LDTNYCFSST   EKNCCVRQLY   IDFRKDLGWK
WIHEPKGYHA   NFCLGPCPYI   WSLDTQYSKV   LALYNQHNP G
ASAAPCCVPQ   ALEPLPIVYY   VGRKPKVEQL   SNMIVRSCKC
S             &           HQDKVPCKMV   DKKVSCQVLG
LLQVPSVLPP   DTETLDLSGN   QLRSILASPL   GFYTALRHLD
LSTNEISFLQ   PGAFQALTHL   EHLSLAHNRL   AMATAALSAGG
LGPLPRVTSL   DLSGNSLYSG   LLERLLGEAP   SLHTLSLAEN
SLTRLTRHTF   RDMPALEQLD   LHSNVLMDIE   DGAFEGLPRL
THLNLSRNSL   TCISDFS LQQ  LRVLDLSCNS   IEAFQTASQP
QAEFQLTWLD   LRENKLLHFP   DLAALPRLIY   LNLSNNLIRL
PTGPPQDSKG   IHAPSEGWSA   LPLSAPSGNA   SGRPLSQLLN
LDLSYNEIEL   IPDSFLEHLT   SLCFLNLSRN   CLRTFEARRL
GSLPCLMLLD   LSHNALETLE   LGARALGSLR   TLLLQGNALR
DLPPYTFANL   ASLQRLNLQG   NRVS PCGGPD  EPGPSGC VAF
SGITSLRSL S   LVDNEIELLR   AGAFLHTPLT   ELDLSSNPGL
EVATGALGGL   EASLEVLA LQ   GNGLMVLQVD   LPCFICLKRL
NLAENRLSHL   PAWTQAVSLE   VLDLRNNSFS   LLPGSAMGGL
ETSLRRLYLQ   GNPLSCCGNG   WLA AQLHQGR  VDVDATQDLI
CRFSSQEEVS   LSHVRPEDCE   KGGLKNIN

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**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.

<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
<b>Storage &amp; Stability</b>	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.
<b>Shipping</b>	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 LAPT4B, 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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