

Recombinant Rat LTBP1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP52441

Size: 10ug, 100ug

Protein Name: Latent-transforming growth factor beta-binding protein 1 (LTBP-1)
(Transforming growth factor beta-1-binding protein 1) (TGF-beta-1-BP-1) (Transforming growth factor beta-1-masking protein large subunit)

Synonym: Ltbp1

UniProt ID: Q00918

UniProt Link: www.uniprot.org/uniprotkb/Q00918/entry

Species Source: Rat

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1712 AA

Molecular Weight: 187 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAGAWLRWGLLLWAGLLAWSAHGRVRRITYVVRPGPGLPAGTLPLAGPPRTFNVALDARYSRSSST
ATSSRSLAGPPAERTRTSQPGGAALPGLRSLPPEPARPGAPSRQLHSHKAGAQTAVTRFAKHGR
QVVRSKVQQDTQSSGGSRLQVQQKQQLQGINVCGGQCCHGWSKAPGSQRCTKPSCVPPCQNGG
MCLRPQFCVCKPGTKGKACEITAAQDTMSPVFGGQNPSSWVPPEPAAKRTSTKKADTLPRVSPV
AQMTLTLPKPSMGLSQQIHSQVAPLSSQNMIRHGQTQEYVLKPKYFPAPKVVSGEQSTEGSFSL
RYGQEQGTAPFQVSNHTGRIKVFTPSICKVTCTKGNCHNSCQKGNTTTLISENGHAADTLTATNFR
VVICHLPCMNGGQCSSRDKCQCPNFTGKLCQIPVLGASMPKLYQHAQQPGKALGSHVIHSTHTLP
LTMTNQQGVKVKFPPNIVNIHVKHPPPEASVQIHQVSRIDGPVGQRVKEVQPGQSQVSYQGLPVQKT
QTVHSTYSHQQVIPHVYPVAAKTQLGRCFQETIGSQCGKALPGLSKQEDCCGTVGTSWGFNKCQK
CPKKQSYHGYTQMMECLQGYKRVNNTFCQDINECQLQGVCPNGECLNTMGSYRCCKMGFGPDP
TFSSCVPDPMMISEEKGPCYRLVSPGRQCMHPLSVHLTKQICCCSVGKAWGPQCEKCPLPGTAAFK
EICPGGMGYTVSGIHRRRPIHQHIGKEAVFVKPKNTQPVAKSTHPPPLPAKEEPVEALTSSREHGP
VAEPEVVTAPPEKEIPSLDQEKTRLEPGQPQLSPGVSTIHLHPQFPVVVEKTSPPVPVEVAPEGSTSS
ASQVIAPTQVTEINECTVNPDICGAGHCINLPVRYTCICYEGYKFSEQQRKCIDIDECAQAQHLCSQG
RCENTEGSFLCICPAGFIASEEGSNCIDVDECLRPDVCRDGRCINTAGAFRCYCDSGYRMSRRGH
CEDIDECLTPSTCPEEQCVNSPGSYQCVPTCEGFRGWNGQCLDVDECLQPKVCTNGSCTNLEGSY
MCSCHKGYSPTPDHRHCQDIDECQQGNLCMNGQCKNTDGSFRCTCGQGYQLSAAKDQCEDIDEC



EHRHLC SHGQCRNTEGSFQCLCNQGYRASVLGDHCE DINECLEDSSVCQGGDCINTAGSYDCTCP
DGLQLNDNKGCDINECAQPGLCAPHGECLNTQGSFHCVC EQGFSISADGRTCEDIDECVNNTVCD
SHGFCDN TAGSFRCLCYQGFQAPQDGQGCVDVNECELLSGVCGEAFCENVEGSFLCVCADENQE
YSPMTGQCRSRATEDSGVD RQPKKEKKECYYNLNDASLCDNV LAPNVTKQECCCTSGAGWGDNC
EIFPCPVQGTAEFSEMCPRGKGFVPAGESSYETGGENYKDADECLLFGE EICKNGYCLNTQPGYEC
YCKEGTYYDPVKLQCFDMDECQDPNSCIDGQCVNTEGSYNCFCTHPMVL DASEKRCVQPTESNEQ
IEETDVYQDL CWEHLSEEYVCSRPLVGKQTTYTECCCLYGEAWGMQCALCPMKDSDDYAQLCNIP
VTGRRRPYGRDALVDFSEQYGPETDPYFIQDRFLNSFEELQAE ECGILNGCENGRCVRVQEGYTCD
CFDGYHLDMAKMT CVDVNECSELNNRMSLCKNAKCINTEGSYKCVCLPGYVPSDKPNYCTPLNTAL
NLDKDSDLE

3. Buffer Composition

Liquid format: PBS-based buffer containing 50% glycerol. Glycerol concentration can be customized upon customer request; please state special requirements when placing your order.

Lyophilized format: Buffer before lyophilization is PBS supplemented with 6% trehalose.

4. Storage Conditions

Upon receipt, store the product at -20 °C or -80 °C. Aliquot the product for on-demand use to preserve protein activity and prevent denaturation and inactivation caused by repeated freeze-thaw cycles.

5. Product Description

This product is recombinant Latent-transforming growth factor beta-binding protein 1 (LTBP-1) (Transforming growth factor beta-1-binding protein 1) (TGF-beta-1-BP-1) (Transforming growth factor beta-1-masking protein large subunit) produced using the HEK293T eukaryotic cell expression system. It is suitable for in-vitro functional assays, protein-protein interaction studies, antibody preparation and other biomedical research applications.

Protein Function: Key regulator of transforming growth factor beta (TGFB1, TGFB2 and TGFB3) that controls TGF-beta activation by maintaining it in a latent state during storage in extracellular space (PubMed:7593177). Associates specifically via disulfide bonds with the Latency-associated peptide (LAP), which is the regulatory chain of TGF-beta, and regulates integrin-dependent activation of TGF-beta (By similarity). Outcompeted by LRRC32/GARP for binding to LAP regulatory chain of TGF-beta (By similarity).

Subcellular Localization: Secreted . Secreted, extracellular space, extracellular matrix .

6. Notes

- Avoid repeated freeze-thaw cycles to maintain protein stability and biological activity.
- Please specify special buffer-composition requirements at the time of order placement.
- For research use only. Not intended for clinical diagnosis, therapeutic use or commercial manufacturing.