

Recombinant Human LTBP1 Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50640

Size: 10ug, 100ug

Protein Name: Latent-transforming growth factor beta-binding protein 1 (LTBP-1)
(Transforming growth factor beta-1-binding protein 1) (TGF-beta1-BP-1)

Synonym: LTBP1

UniProt ID: Q14766

UniProt Link: www.uniprot.org/uniprotkb/Q14766/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1721 AA

Molecular Weight: 187 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAGAWLRWGLLLWAGLLASSAHGRLRRITYVHPGPGLAAGALPLSGPPRSRTFNVALNARYSRSS
AAAGAPSRASPGVPSERTRRTSKPGGAALQGLRPPPPPPPEPARPAVPGGQLHPNPGGHPAAAPF
TKQGRQVVRSKVPQETQSGGGSRLQVHQKQQLQGVNVCGRCCGWSKAPGSQRCTKPSCVPP
CQNGGMCLRPQLCVCKPGTKGKACETIAAQDTSSPVFGGQSPGAASSWGPPEQAAKHTSSKKAD
TLPRVSPVAQMTLTLKPKPSVGLPQQIHSQVTPLSQSVVIHHGQTQEYVLKPKYFPAQKGISGEQS
TEGSFPLRYVQDQVAAPFQLSNHTGRIKVVFTPSICKVTCTKGSCQNSCEKGNTTTLISENGHAADTL
TATNFRVVICHLPCMNGGQCSSRDKCQCPPNFTGKLCQIPVHGASVPKLYQHSQQPGKALGTHVIH
STHTLPLTVTSQQGVKVKFPPNIVNIHVKHPPPEASVQIHQVSRIDGPTGQKTKEAQPQGSQVSYQGL
PVQKTQTIHSTYSHQQVIPHVYPVAAKTQLGRCFQETIGSQCGKALPGLSKQEDCCGTGVTGWSGFN
KCQKCPKPSYHGYNQMMELPGYKRVNNTFCQDINECQLQGVCPNGECLNTMGSYRCTCKIGFG
PDPTFSSCVPDPPVISEEKGPCYRLVSSGRQCMHPLSVHLTKQLCCCSVGKAWGPHCEKCPLPGT
AAFKEICPGGMGYTVSGVHRRRPIHHHVKGKPVFVKPKNTQPVAKSTHPPPLPAKEEPVEALTFSR
EHGPGVAEPEVATAPPEKEIPSLDQEKTKLEPGQPQLSPGISTIHLPQFPVIEKTSPPVPVEVAPE
ASTSSASQVIAPTQVTEINECTVNPDICGAGHCINLPVRYTCICYEGYRFSEQQRKCDVIDECTQVQH
LCSQGRCENTEGSFLCICPAGFMASEEGTNCIDVDECLRPDVCGEHCVNTVGAFRCEYCDSGYR
MTQRGRCEDIDECLNPSTCPDEQCVNSPGSYQCVPCTEGFRGWNGQCLDVDECLPNVCANGDC
SNLEGSYMC SCHKGYTRTPDHKHCRDIDECQQGNLCVNGQCKNTEGSFRCTCGQGYQLSAAKDQ
CEDIDECQHRHLCAHGQCRNTEGSFQCVCDQGYRASGLGDHCECLEDKSVQCQRGDCINTAG



SYDCTCPDGFQLDDNKTCQDINECEHPGLCGPQGECNLNTEGSFHCVCQQGFSISADGRTCEDIDEC
VNNTVCDSHGFCDN TAGSFRCLCYQG FQAPQDGGCVDVNECELLSGVCGEAF CENVEGSFLCV
CADENQEYSPMTGQCRSRTSTDLDVDVDQPKKEKKECYYNLNDASLCDNV LAPNVT KQECCCTSG
VGWGDNCEIFPCPVLGTAEFTMC PKGKGFVPAGESSEAGGENYKDADECLLFGQEICKNGFCLN
TRPGYECYCKQGTYYDPVKLQCFDMDECQDPSSCIDGQCVNTEGSYNCFCTHPMVLDA SEKRCIR
PAESNEQIEETDVYQDLCWEHLSDEYVCSRPLVGKQTTYTECCCLYGEAWGMQCALCPLKDSDDY
AQLCNIPVTGRRQPYGRDALVDFSEQYTPEADPYFIQDRFLNSFEELQAEECGILNGCENGRCVRV
QEGYTCD CF DGYHLD TAKMTCVDVNECDELNNRMSLCKNAKCINTDGSYKCLCLPGYVPSDKPNY
CTPLNTALNLEKDS DLE

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-beta1-BP-1) 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:2022183, PubMed:8617200, PubMed:8939931). 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 (PubMed:15184403, PubMed:8617200, PubMed:8939931). Outcompeted by LRRC32/GARP for binding to LAP regulatory chain of TGF-beta (PubMed:22278742).

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.