

Recombinant Human LIFR Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50622

Size: 10ug, 100ug

Protein Name: Leukemia inhibitory factor receptor (LIF receptor) (LIF-R) (CD antigen CD118)

Synonym: LIFR

UniProt ID: P42702

UniProt Link: www.uniprot.org/uniprotkb/P42702/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 1097 AA

Molecular Weight: 124 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MMDIYVCLKRPSWMVDNKRMTASNFQWLLSTFILLYLMNQVNSQKKGAPHDLKCVTNNLQVWNC
SWKAPSGTGRGTDYEVCIENTRSRSCYQLEKTSIKIPALSHGDYEITINSLHDFGSSTSKFTLNEQNVS
LIPDTPPEILNLSADFSTSTLYLKWNDRGSVFPHRSNVIWEIKVLRKESMELVKLVTHNTTLNGKDTLHH
WSWASDMPLECAIHFVEIRCYIDNLHFSGLEEWSDWSPVKNISWIPDSQTKVFPQDKVILVGSDITFC
CVSQEKVLSALIGHTNCPLIHLDGENVAIKIRNISVSASSGTNNVFTTEDNIFGTIVIFAGYPPDTPQQLN
CETHDLKEIICSWNPGRVTALVGPRATSYTLVESFSGKYVRLKRAEAPTNEQYQLLFQMLPNQEIYNF
TLNAHNPLGRSQSTILVNITEKVYPHTPTSFKVKDINSTAVKLSWHLPGNFAKINFLCEIEIKKSNSVQE
QRNVTIKGVENSSYLVALDKLNPTLYTFIRICSTETFWKWSKWSNKKQHLTTEASPSKGPDTWRE
WSSDGKNLIYWKPLPINEANGKILSYNVSCSSDEETQSLSEIPDPQHKAIRLDKNDYIISVVAKNSV
GSSPPSKIASMEIPNDLIEQVVGMGKILLTWHYDPNMTCDYVIKWCNSSRSEPCLMDWKRVPS
NSTETVIESDEFPRGIRYNFFLYGCRNQGYQLLRSMIGYIEELAPIVAPNFTVEDTSADSILVKWEDIPV
EELRGFLRGYLFYFGKGERDTSKMRVLESGRSDIKVKNITDISQKTLRIADLQGKTSYHLVLRAYTDG
GVGPEKSMYVVTKENSGLIAILIPVAVAVIVGVVTSILCYRKREWIKETFPDIPNPENCKALQFQKS
VCEGSSALKTLEMNPCTPNNEVLETRSAFPKIEDTEIISPVAERPEDRSDAEPENHVVSYPPIIEE
EIPNPAADEAGGTAQVIYIDVQSMYQPAKPEEEQENDPVGGAGYKPMHLPINSTVEDIAAEEDLD
KTAGYRQANVNTWNLVSPDSPRSIDSNSEIVSFGSPCSINSRQFLIPPKDEDSPKSNNGGWSFTNF
FQNKPNP

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 Leukemia inhibitory factor receptor (LIF receptor) (LIF-R) (CD antigen CD118) 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: [Isoform 1]: Functions as a membrane-bound signal-transducing subunit either in complex with IL6ST/gp130 or as part of the ciliary neurotrophic factor receptor (CNTFR) complex composed by CNTFR, IL6ST/gp130 and LIFR (PubMed:11285233, PubMed:11294841, PubMed:1542794, PubMed:39532904, PubMed:9030543, PubMed:9188471). Signal transmission is initiated either by binding directly to cytokines, such as OSM or LIF or CTF1, or through the binding of other cytokines, like CNTF, CLCF1 or the heterodimeric complex CRLF1-CLCF1 to the non-signaling receptor CNTFR; ligand binding induces heterodimerization of IL6ST/gp130 and LIFR which activates JAK tyrosine kinases bound to their intracellular domains (PubMed:11285233, PubMed:11294841, PubMed:1542794, PubMed:1915266, PubMed:9030543, PubMed:9188471). These kinases subsequently phosphorylate the homodimer or heterodimer form of IL6ST/gp130 (PubMed:11285233, PubMed:11294841, PubMed:9030543). The tyrosine phosphorylated signaling receptors serve in turn as docking sites for recruitment and activation of signal transducer and activators of transcription (STATs) (PubMed:11285233, PubMed:11294841, PubMed:9030543, PubMed:9188471). Engages sites 3 of ligands cytokines (PubMed:36930708).; [Isoform 2]: Could inhibit the biological activity of LIF by blocking its binding to receptors on target cells.

Subcellular Localization: [Isoform 1]: Cell membrane ; Single-pass type I membrane protein.; [Isoform 2]: Secreted .

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.