

Recombinant Human LTK Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP50643

Size: 10ug, 100ug

Protein Name: Leukocyte tyrosine kinase receptor (EC 2.7.10.1) (Protein tyrosine kinase 1)

Synonym: LTK, TYK1

UniProt ID: P29376

UniProt Link: www.uniprot.org/uniprotkb/P29376/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 864 AA

Molecular Weight: 92 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MGCWGQLLVWFGAAGAILCSSPGSQETFLRSSPLPLASPSRPDPKVSAPPSILEPASPLNSPGTEG
SWLFSTCGASGRHGPTQTQCDGAYAGTSVVVTVGAAGQLRGVQLWRVPGPGQYLISAYGAAGGK
GAKNHLSRAHGVFVSAIFSLGLGESLYILVGQQGEDACPGGSPESQLVCLGESRAVEEHAAMDGSE
GVPGSRRWAGGGGGGGGATYVFRVRAGELEPLLVAAGGGGRAYLRPRDRGRTQASPEKLENRSE
APGSGGRGAAGGGGGGWTSRAPSPQAGRSLQEGAEGGQGCSEAWATLGWAAAGGFGGGGGA
CTAGGGGGGYRGGDASETDNLWADGEDGVSFHPSSELFQPLAVTENHGEVEIRRHLNCSHCPL
RDCQWQAEQLAECLCEGMELAVDNVTCMDLHKPPGPLVLMVAVVATSTLSLLMVCGLILVKQK
KWQGLQEMRLPSPELELSKLRTSAIRTAAPNPYYCQVGLGPAQSWPLPPGVTEVSPANVTLLRALGH
GAFGEVYEGLVIGLPGDSSPLQVAIKTLPELCSPQDELDFLMEALIISKFRHQNIVRCVGLSLRATPRI
LLELMSSGDMKSFRLRHSRPHLGQPSPLVMRDLLQLAQDIAQGCHYLEENHFIHRDIAARNCLLSCAG
PSRVAKIGDFGMARDIYRASYRRGDRALLPVKWMPPEAFLEGIFTSKTDSSWSFGVLLWEIFSLGYM
PYPGRNTQEVLDFFVGGGRMDPPRGCPGPVYRIMTQCWQHEPELRPSFASILERLQYCTQDPDVL
NSLLPMELGPTPEEEGTSGLGNRSLCLRPPQPQELSPEKLKSWGGSPPLGPWLSSGLKPLKSRGL
QPQNLWNPTYRS

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 Leukocyte tyrosine kinase receptor (EC 2.7.10.1) (Protein tyrosine kinase 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: Receptor with a tyrosine-protein kinase activity (PubMed:10445845, PubMed:20548102, PubMed:30061385). Following activation by ALKAL1 or ALKAL2 ligands at the cell surface, transduces an extracellular signal into an intracellular response (PubMed:30061385, PubMed:34646012). Ligand-binding to the extracellular domain induces tyrosine kinase activation, leading to activation of the mitogen-activated protein kinase (MAPK) pathway (PubMed:20548102). Phosphorylates almost exclusively at the first tyrosine of the Y-x-x-x-Y-Y motif (By similarity). The exact function of this protein is not known; studies with chimeric proteins demonstrate its ability to promote growth and specifically neurite outgrowth, and cell survival (PubMed:18849880, PubMed:9223670). Involved in regulation of the secretory pathway involving endoplasmic reticulum (ER) export sites (ERESs) and ER to Golgi transport (PubMed:20548102).

Subcellular Localization: Cell membrane ; Single-pass type I membrane protein .

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.