

Recombinant Human UFO Protein

For Research Use Only

1. Basic Product Information

Catalog No.: REP51040

Size: 10ug, 100ug

Protein Name: Tyrosine-protein kinase receptor UFO (EC 2.7.10.1) (AXL oncogene)

Synonym: AXL, UFO

UniProt ID: P30530

UniProt Link: www.uniprot.org/uniprotkb/P30530/entry

Species Source: Human

Expression System: HEK293T eukaryotic cell expression system Sequence

Length: 894 AA

Molecular Weight: 98 KD

Protein Tag: C-terminal His6

2. Amino Acid Sequence

MAWRCPRMGRVPLAWCLALCGWACMAPRGTQAEESPFVGNPGNITGARGLTGTLRCQLQVQGEP
PEVHWLRDGGQILELADSTQTQVPLGEDEQDDWIVVSQRLRITSLQLSDTGQYQCLVFLGHQTFVSQP
GYVGLEGLPYFLEEPEDRTVAANTPFNLSCQAQGPPEPVDLLWLQDAVPLATAPGHGPQRSRLHVPG
LNKTSSFSCEAHNAKGVTTSRTATITVLPQQPRNLHLVSRQPTELEVAWTPGLSGIYPLTHCTLQAVL
SDDGMGIQAGEPDPPEEPLTSQASVPPHQLRLGSLHPHTPYHIRVACTSSQGPSSWTHWLPVETPE
GVPLGPPENISATRNGSQAFVHWQEPRAPLQGTLLGYRLAYQGQDTPEVLMDIGLRQEVTLELQGD
GSVSNLTVCAAYTAAGDGPWSLPVPLEAWRPGQAQPVHQLVKEPSTPAFSWPWWYVLLGAVVA
AACVLILALFLVHRRKKETRYGEVFPTVERGELVVRYRVRKSYSRRTTEATLNSLGISEELKEKLRD
VMVDRHKVALGKTLGEGEFGAVMEGQLNQDDSIKVAVKTMKIAICTRSELEDFLSEAVCMKEFDHP
NVMRLIGVCFQGSERESFPAPVVILPFMKHGDLSHFLYSRLGDQPVYLPQTMLVKFMADIASGMEY
LSTKRFIHRDLAARNCMLNENMSVCVADFGLSKKIYNGDYRQGRKAKMPVKWIAIESLADRVYTSKS
DVWSFGVTMWEIATRQTPYPGVENSEIYDYLRRQGNRLKQPADCLDGLYALMSRCWELNPQDRPS
FTELREDLENTLALPPAQEPDEILYVNMDEGGGYPEPPGAAGGADPPTQPDPKDSCSCLTAAEVH
PAGRYVLC PSTTPSPAQPADRGSPAAPGQEDGA

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 Tyrosine-protein kinase receptor UFO (EC 2.7.10.1) (AXL oncogene) 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 tyrosine kinase that transduces signals from the extracellular matrix into the cytoplasm by binding growth factor GAS6 and which is thus regulating many physiological processes including cell survival, cell proliferation, migration and differentiation. Ligand binding at the cell surface induces dimerization and autophosphorylation of AXL. Following activation by ligand, AXL binds and induces tyrosine phosphorylation of PI3-kinase subunits PIK3R1, PIK3R2 and PIK3R3; but also GRB2, PLCG1, LCK and PTPN11. Other downstream substrate candidates for AXL are CBL, NCK2, SOCS1 and TNS2. Recruitment of GRB2 and phosphatidylinositol 3 kinase regulatory subunits by AXL leads to the downstream activation of the AKT kinase. GAS6/AXL signaling plays a role in various processes such as endothelial cell survival during acidification by preventing apoptosis, optimal cytokine signaling during human natural killer cell development, hepatic regeneration, gonadotropin-releasing hormone neuron survival and migration, platelet activation, or regulation of thrombotic responses. Also plays an important role in inhibition of Toll-like receptors (TLRs)-mediated innate immune response.; (Microbial infection) Acts as a receptor for lassa virus and lymphocytic choriomeningitis virus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope.; (Microbial infection) Acts as a receptor for Ebolavirus, possibly through GAS6 binding to phosphatidyl-serine at the surface of virion envelope.; (Microbial infection) Promotes Zika virus entry in glial cells, Sertoli cells and astrocytes (PubMed:28076778, PubMed:29379210, PubMed:31311882). Additionally, Zika virus potentiates AXL kinase activity to antagonize type I interferon signaling and thereby promotes infection (PubMed:28076778). Interferon signaling inhibition occurs via an SOCS1-dependent mechanism (PubMed:29379210).

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.