Recombinant LITAF protein (His tag)

Catalog Number	543461
Synonyms	LPS-induced TNF-alpha factor; Small integral membrane protein of lysosome/late endosome; p53-induced gene 7 protein
Species	Human
Expression System	E. coli
Accession	Q99732
Molecular Weight	Predictes a molecular mass of 11.47 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	73-161
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 73-161 aa (Q99732) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 µg/µl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Introducing the recombinant human LITAF protein fragment (residues 73-161), a highly specific tool for investigating the functional roles of the LITAF domain. This 89-amino acid fragment is expertly designed to encompass the complete LITAF domain (76-160), providing researchers with a precise reagent for studying domain-specific functions in protein trafficking and cytokine regulation pathways. Lipopolysaccharide-induced tumor necrosis factor-alpha factor (LITAF) is a multifunctional protein that plays crucial roles in endosomal protein trafficking and lysosomal degradation pathways. The full-length protein facilitates the targeting of endocytosed receptors such as EGFR and ERGG3 for lysosomal degradation, thereby modulating downstream signaling cascades. Through its interaction with ESCRT complex components TSG101, HGS, and STAM, LITAF contributes to membrane recruitment processes. Additionally, LITAF demonstrates nuclear localization and may regulate gene expression, particularly through synergistic interactions with STAT6 to modulate cytokine production including TNF, CCL2, CCL5, CXCL1, IL1A, and IL10. The protein exhibits dynamic subcellular distribution, primarily associating with lysosomal, endosomal, and cell membranes as a peripheral membrane protein, while also capable of translocating to the nucleus to potentially influence transcriptional regulation.