Recombinant LCP2 protein (His tag)

Catalog Number	544898
Synonyms	SH2 domain-containing leukocyte protein of 76 kDa; SLP-76 tyrosine phosphoprotein; SLP76
Species	Human
Expression System	E. coli
Accession	Q13094
Molecular Weight	Predictes a molecular mass of 14.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	420-533
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 420-533 aa (Q13094) 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	Recombinant Human LCP2 (SLP-76) SH2 Domain Fragment (aa 420-533) is a high-purity protein designed for studying T-cell receptor signaling and immune cell activation. This fragment contains the essential SH2 domain, enabling researchers to investigate domain-specific interactions in pathways involving ZAP70, VAV1, and NF-kappa-B activation. Lymphocyte cytosolic protein 2 (LCP2/SLP-76) is a critical adapter protein in immune signaling, primarily functioning in T-cells, platelets, mast cells, and NK cells. It transduces signals from the T-cell receptor (TCR) following antigen recognition, facilitating T-cell activation through phosphorylation by ZAP70 and subsequent recruitment of effectors like VAV1, NCK, and ITK. This protein also contributes to AGER-induced signaling, promoting p38 MAPK and ERK1/2 activation, cytokine release, and pro-inflammatory responses. Located in the cytoplasm, LCP2 plays a vital role in pathways involving PKC-theta and NF-kappa-B, underscoring its importance in immune regulation and inflammation.