Recombinant C2CD5 protein (His tag)

Catalog Number	540662
Synonyms	C2 domain-containing phosphoprotein of 138 kDa
Species	Human
Expression System	E. coli
Accession	Q86YS7
Molecular Weight	Predictes a molecular mass of 29.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band.

Product Information

Sequence Region	1-248
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-248 aa (Q86YS7) 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 C2CD5 Protein Fragment (C2 domain-containing protein 5, residues 1-248) is a high-purity, functional fragment encompassing the complete C2 domain. This product is an essential tool for investigating calcium-dependent membrane binding and insulin-stimulated glucose transport mechanisms in adipocytes. The full-length C2CD5 protein (C2 domain-containing phosphoprotein of 138 kDa) is critical for insulin-mediated glucose homeostasis. It facilitates glucose transporter SLC2A4/GLUT4 translocation from intracellular glucose storage vesicles to the plasma membrane in adipocytes through calcium-dependent phospholipid membrane binding, enabling optimal membrane fusion. The protein dynamically localizes to cytoplasmic vesicle membranes, the cell cortex, plasma membrane, and ruffles, associating with GLUT4-vesicles upon insulin stimulation. This fragment (residues 1-248) isolates the functional C2 domain, enabling targeted studies of its role in membrane interactions and metabolic regulation.