Recombinant SG196 protein (His tag)

Catalog Number	545940
Synonyms	POMK; Protein kinase-like protein SgK196; Sugen kinase 196
Species	Human
Expression System	E. coli
Accession	Q9H5K3
Molecular Weight	Predictes a molecular mass of 36.81 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	44-350
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 44-350 aa (Q9H5K3) 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 Protein O-mannose Kinase (POMK) Fragment (44-350) is a high-purity protein designed for research on O-mannose phosphorylation. This fragment contains the complete protein kinase domain, making it an essential tool for studying enzymatic activity and its role in dystroglycan modification. Protein O-mannose kinase (POMK) is a key enzyme that phosphorylates the 6-position of O-mannose within a specific trisaccharide structure (GalNAc-β-1,3-GlcNAc-β-1,4-mannose) to generate phosphorylated O-mannosyl trisaccharide. This modification is critical for the function of alpha-dystroglycan (DAG1), enabling high-affinity binding to laminin G-like domain-containing extracellular proteins, which is vital for maintaining structural integrity in tissues. POMK localizes to the endoplasmic reticulum membrane as a single-pass type II membrane protein, where it specifically recognizes the GalNAc-β-3-GlcNAc-β disaccharide linked to O-mannose as a substrate motif. Dysregulation of POMK activity is associated with defects in dystroglycan glycosylation, underscoring its importance in neuromuscular development and disease research.