Recombinant SPCS3 protein (His tag)

Catalog Number	544743
Synonyms	Microsomal signal peptidase 22/23 kDa subunit; SPC22/23; SPase 22/23 kDa subunit
Species	Human
Expression System	E. coli
Accession	P61009
Molecular Weight	Predictes a molecular mass of 18.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	33-180
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 33-180 aa (P61009) 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 Signal Peptidase Complex Subunit 3 (SPCS3) Fragment (residues 33-180) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment represents a stable region of the SPC22/23 subunit, essential for signal peptidase complex activity, making it ideal for investigating endoplasmic reticulum protein processing and viral pathogenesis mechanisms. Signal Peptidase Complex Subunit 3 (SPCS3) is an essential component of the signal peptidase complex (SPC) that catalyzes the cleavage of N-terminal signal sequences from nascent proteins during translocation into the endoplasmic reticulum lumen. The protein stabilizes and positions the catalytic center of the complex near the lumenal surface, directly supporting SPC enzymatic activity. SPCS3 is a single-pass type II membrane protein localized to the endoplasmic reticulum membrane. Beyond its fundamental role in protein maturation, SPCS3 is critically involved in flavivirus virion production, including West Nile, Japanese encephalitis, Dengue, and Yellow Fever viruses, highlighting its significance in both cellular biology and viral infection pathways.