Recombinant STEEP protein (His tag)

Catalog Number	541260
Synonyms	STEEP
Species	Human
Expression System	E. coli
Accession	Q9H5V9
Molecular Weight	Predictes a molecular mass of 15.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 17 kDa band.

Product Information

Sequence Region	1-123
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 1-123 aa (Q9H5V9) 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 STING ER Exit Protein (STEEP) Fragment (1-123) is a highly purified protein fragment designed for structural and biochemical studies. This fragment represents a stable and soluble unit of STEEP, facilitating research into its role in endoplasmic reticulum exit site formation and STING1-mediated immune signaling. STEEP (STING ER exit protein), encoded by the STEEP1 gene in Homo sapiens, functions as a molecular adapter that stimulates membrane curvature formation and establishes endoplasmic reticulum exit sites (ERES) by recruiting the PI3K complex I. This activity promotes COPII vesicle-mediated transport and is critical for the endoplasmic reticulum exit of cGAMP-activated STING1 oligomers, linking it to innate immune responses. STEEP localizes to the cytoplasm, endoplasmic reticulum membrane (as a peripheral membrane protein on the cytoplasmic side), and nucleus, and is recruited to the endoplasmic reticulum upon interaction with phosphorylated STING1, underscoring its importance in cellular trafficking and immune regulation pathways.