Recombinant STEA3 protein (His tag)

Catalog Number	542870
Synonyms	Dudulin-2; Six-transmembrane epithelial antigen of prostate 3; Tumor suppressor-activated pathway protein 6; hTSAP6; pHyde; hpHyde
Species	Human
Expression System	E. coli
Accession	Q658P3
Molecular Weight	Predictes a molecular mass of 24.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	1-207
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-207 aa (Q658P3) 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 Metalloreductase STEAP3 (EC 1.16.1.-) fragment (residues 1-207) is a high-purity, soluble protein designed for structural and biochemical studies. This fragment represents a stable, functionally relevant unit of the integral membrane protein, enabling research into its NADPH-dependent ferric-chelate reductase activity and role in cellular iron and copper metabolism. Metalloreductase STEAP3 is an integral membrane protein localized to endosome membranes, where it functions as a NADPH-dependent ferric-chelate reductase. It facilitates transmembrane electron transfer from NADPH to reduce Fe(3+) chelates and Cu(2+) to Cu(1+), playing a critical role in transferrin-dependent iron uptake in erythroid cells. Additionally, STEAP3 is implicated in processes downstream of p53/TP53, interfacing apoptosis and cell cycle progression, and indirectly supports exosome secretion by enabling the release of proteins such as TCTP. The recombinant fragment (residues 1-207) provides a soluble, stable unit ideal for investigating these mechanisms without the complexities of full-length membrane protein expression.