Recombinant STAR protein (His tag)

Catalog Number	547024
Synonyms	StAR; START domain-containing protein 1; StARD1
Species	Human
Expression System	E. coli
Accession	P49675
Molecular Weight	Predictes a molecular mass of 26.11 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	67-285
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 67-285 aa (P49675) 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 Steroidogenic Acute Regulatory Protein (StAR) Fragment (residues 67-285) is a high-purity protein designed for studying cholesterol transport and steroidogenesis. This 219-amino acid fragment fully encompasses the functional START domain, making it an ideal tool for domain-specific functional assays and mechanistic investigations. Steroidogenic Acute Regulatory Protein (StAR) plays a critical role in steroid hormone biosynthesis by facilitating the transfer of cholesterol from the outer to the inner mitochondrial membrane. This transport is the rate-limiting step in the production of pregnenolone, the precursor to all steroid hormones. The protein is localized to mitochondria, where it mediates the initial and essential step in steroidogenesis. The START domain contained within this recombinant fragment is responsible for cholesterol binding and transport activity, making this protein fragment particularly valuable for studying the molecular mechanisms of cholesterol metabolism and steroid hormone regulation.