Recombinant CTSR1 protein (His tag)

Catalog Number	543182
Synonyms	CatSper1; hCatSper
Species	Human
Expression System	E. coli
Accession	Q8NEC5
Molecular Weight	Predictes a molecular mass of 14.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 16 kDa band.

Product Information

Sequence Region	672-780
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 672-780 aa (Q8NEC5) 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 Cation channel sperm-associated protein 1 (CatSper1) fragment (residues 672-780) is a high-quality protein product designed for structural and biochemical studies. This 109-amino acid fragment represents a stable and soluble region of CatSper1, the key calcium channel subunit essential for sperm function and fertilization. Cation channel sperm-associated protein 1 (CatSper1) serves as the pore-forming subunit of the CatSper complex, a sperm-specific voltage-gated calcium channel that plays a central role in calcium-dependent physiological responses required for successful fertilization. These responses include sperm hyperactivation, acrosome reaction, and chemotaxis toward the oocyte. The protein is specifically localized to the principal piece of the sperm tail flagellum membrane, where it functions as a multi-pass membrane protein. This strategic localization underscores its critical importance in male fertility and reproductive biology.