Recombinant BSPH1 protein (His tag)

Catalog Number	550613
Synonyms	Bovine seminal plasma protein homolog 1; Bovine seminal plasma protein-like 1
Species	Human
Expression System	E. coli
Accession	Q075Z2
Molecular Weight	Predictes a molecular mass of 13.26 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	38-132
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 38-132 aa (Q075Z2) 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	Introducing the recombinant human Binder of sperm protein homolog 1 (BSPH1) fragment (residues 38-132), a 95-amino acid protein designed for studying sperm capacitation mechanisms. This fragment fully encompasses the Fibronectin type-II 1 and 2 domains, making it an ideal tool for investigating domain-specific interactions with high-density lipoproteins (HDLs), heparin, and phospholipids. Binder of sperm protein homolog 1 (BSPH1) is a secreted protein that binds sperm in vitro and promotes sperm capacitation, specifically enhancing the process induced by high-density lipoproteins (HDLs). It also interacts with heparin and phospholipid liposomes but shows no binding to chondroitin sulfate B. The protein's localization to the extracellular space underscores its role in reproductive biology, particularly in mediating sperm-egg interaction prerequisites. The selected fragment (38-132) retains key functional domains, enabling focused research on their contributions to HDL-mediated capacitation and ligand binding activities.