Recombinant ODFP1 protein (His tag)

Catalog Number	540316
Synonyms	Heat shock protein beta-10; HspB10; Heat shock protein family B member 10
Species	Human
Expression System	E. coli
Accession	Q14990
Molecular Weight	Predictes a molecular mass of 13.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	95-201
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 95-201 aa (Q14990) 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 Outer Dense Fiber Protein 1 (ODF1) Fragment (aa 95-201) is a high-quality, soluble protein designed for structural and biochemical studies. This 107-amino acid fragment, derived from the Homo sapiens ODF1 gene (UniProt ID: Q14990), represents a stable unit ideal for investigating sperm tail architecture and function. Outer Dense Fiber Protein 1 (also known as Heat Shock Protein Beta-10 or HspB10) is a key structural component of the outer dense fibers in mammalian spermatozoa. These filamentous structures surround the axoneme in the midpiece and principal piece of the sperm tail, where they contribute to maintaining passive elastic structures and facilitating elastic recoil during sperm motility. The protein localizes to specialized cellular structures including the manchette in elongating spermatids, the sperm flagellum, centrosome, and cytoskeleton, highlighting its crucial role in sperm development and function. The selected fragment (amino acids 95-201) was computationally optimized to provide a stable, soluble representation of the protein suitable for research applications.