Recombinant ACL7A protein (His tag)

Catalog Number	541648
Synonyms	Actin-like-7-alpha
Species	Human
Expression System	E. coli
Accession	Q9Y615
Molecular Weight	Predictes a molecular mass of 42.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	70-435
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 70-435 aa (Q9Y615) 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 Actin-like protein 7A (ACTL7A) Fragment (aa 70-435) is a high-purity, stable protein fragment designed for structural and biochemical studies. This fragment represents a soluble and functional unit of ACTL7A, essential for spermatogenesis and male fertility, making it an invaluable tool for reproductive biology and fertility research. Actin-like protein 7A (ACTL7A) is a human protein critical for normal spermatogenesis and male fertility. It is required for proper sperm head morphology, acroplaxome formation, acrosome attachment, and acrosome granule stability. ACTL7A functions by anchoring and stabilizing acrosomal adherence to the acroplaxome, partly through facilitating F-actin presence in the subacrosomal space, and plays a key role in the formation and fusion of Golgi-derived vesicles during acrosome biogenesis. Subcellularly, it localizes to the cytoplasm, cytoskeleton, Golgi apparatus, nucleus, and specifically to the acrosome in cytoplasmic vesicles. The provided fragment (aa 70-435) was selected computationally to ensure stability and solubility, enabling detailed investigations into its structural and functional properties without the complexities of the full-length protein.