Recombinant EFCB9 protein (His tag)

Catalog Number	551087
Species	Human
Expression System	E. coli
Accession	A8MZ26
Molecular Weight	Predictes a molecular mass of 25.59 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	1-197
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-197 aa (A8MZ26) 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 EF-hand calcium-binding domain-containing protein 9 (EFCAB9) fragment (amino acids 1-197), encompassing the complete EF-hand 1, EF-hand 2, and EF-hand 3 domains. This high-purity protein serves as an essential tool for investigating calcium-sensing mechanisms in sperm cell hyperactivation and CatSper complex regulation. EFCAB9 functions as an auxiliary component of the CatSper complex, which is critical for sperm cell hyperactivation—a process essential for sperm motility during fertilization. This protein acts as a pH-dependent calcium sensor that activates the CatSper channel, directly interacting with CATSPERZ to associate with the channel pore and maintain its structural integrity. Localized to the cytoplasm and specifically to the principal piece of the sperm tail flagellum, EFCAB9 senses intracellular calcium levels and is required for the proper two-row architecture of each CatSper channel, making it fundamental to reproductive biology research.