Recombinant B9D2 protein (His tag)

Catalog Number	545786
Synonyms	MKS1-related protein 2
Species	Human
Expression System	E. coli
Accession	Q9BPU9
Molecular Weight	Predictes a molecular mass of 20.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 21 kDa band.

Product Information

Sequence Region	1-175
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 1-175 aa (Q9BPU9) 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 B9 domain-containing protein 2 (MKS1-related protein 2) fragment (amino acids 1-175), a high-quality tool designed for investigating ciliary biology and barrier functions. This fragment fully encompasses the C2 B9-type domain, making it ideal for domain-specific functional studies, protein-protein interaction assays, and mechanistic research on ciliary membrane dynamics. B9 domain-containing protein 2, encoded by the B9D2 gene, is a critical component of the tectonic-like complex located at the transition zone of primary cilia. This complex acts as a selective barrier, regulating the diffusion of transmembrane proteins between the cilia and plasma membranes, thereby maintaining ciliary composition and function. The protein localizes to the cytoplasm, specifically at the cilium basal body and axoneme, and has been observed in the nucleus, underscoring its role in cellular structure and signaling. Its involvement in ciliary gatekeeping highlights its significance in understanding ciliopathies and cellular trafficking mechanisms.