Recombinant BBS4 protein (His tag)

Catalog Number	548044
Synonyms	Bardet-Biedl syndrome 4 protein
Species	Human
Expression System	E. coli
Accession	Q96RK4
Molecular Weight	Predictes a molecular mass of 46.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 47 kDa band.

Product Information

Sequence Region	34-431
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 34-431 aa (Q96RK4) 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 BBSome complex member BBS4 (Bardet-Biedl syndrome 4 protein) fragment (amino acids 34-431), a highly stable and soluble unit derived from human BBS4. This fragment is engineered for structural and biochemical studies, enabling researchers to explore the protein's role in ciliogenesis and membrane protein sorting to primary cilia with precision and reliability. The full-length BBS4 protein is a critical component of the BBSome complex, which functions as a coat complex essential for sorting specific membrane proteins to primary cilia and promoting ciliogenesis. It facilitates this process by interacting with RAB3IP/Rabin8, the guanosyl exchange factor for Rab8, leading to Rab8-GTP localization at the cilium and subsequent vesicle docking and fusion. Additionally, BBS4 contributes to the regulation of the sonic hedgehog pathway through SMO ciliary trafficking and is involved in microtubule anchoring at the centrosome, as well as dynein-mediated transport of pericentriolar proteins. Subcellularly, BBS4 localizes to the cytoplasm, centrosome, centriolar satellites, and ciliary membranes, underscoring its importance in cellular structure and signaling pathways related to ciliary function.