Recombinant BFSP2 protein (His tag)

Catalog Number	540268
Synonyms	49 kDa cytoskeletal protein; Beaded filament structural protein 2; Lens fiber cell beaded filament protein CP 47; CP47; Lens fiber cell beaded filament protein CP 49; CP49; Lens intermediate filament-like light; LIFL-L
Species	Human
Expression System	E. coli
Accession	Q13515
Molecular Weight	Predictes a molecular mass of 36.21 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	111-415
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 111-415 aa (Q13515) 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 Phakinin (BFSP2) Fragment (aa 111-415) - A high-quality 305 amino acid fragment of the essential lens cytoskeletal protein Phakinin, specifically engineered for structural and biochemical research applications. This stable and soluble protein unit enables detailed investigation of lens intermediate filament formation and maintenance of retinal optical clarity. Phakinin (BFSP2) is a crucial 49 kDa cytoskeletal protein required for the correct formation of lens intermediate filaments as part of a complex composed of BFSP1, BFSP2 and CRYAA. This protein plays a vital role in maintaining retinal lens optical clarity, ensuring proper visual function. Phakinin exhibits dynamic subcellular localization, primarily expressed at the plasma membrane in peripheral lens fiber cells while also localizing to the cytoplasm in mature lens fiber cells. It functions as a peripheral membrane protein on the cytoplasmic side and associates with the cytoskeleton and cell cortex, highlighting its importance in cellular structural organization and lens fiber cell architecture.