Recombinant BSCL2 protein (His tag)

Catalog Number	540990
Synonyms	Bernardinelli-Seip congenital lipodystrophy type 2 protein
Species	Human
Expression System	E. coli
Accession	Q96G97
Molecular Weight	Predictes a molecular mass of 23.90 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 24 kDa band.

Product Information

Sequence Region	48-242
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 48-242 aa (Q96G97) 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 Seipin (BSCL2) Fragment (aa 48-242) is a high-quality protein product designed for structural and biochemical studies. This 195-amino acid fragment represents a stable and soluble unit of Seipin, a key regulator of lipid droplet formation and adipocyte development, making it an ideal tool for investigating lipid metabolism and energy homeostasis mechanisms. Seipin, encoded by the BSCL2 gene, plays a crucial role in lipid droplet (LD) formation and maturation, serving as a central component in lipid and energy homeostasis. This protein defines the sites of LD formation in the endoplasmic reticulum (ER) in association with LDAF1 and facilitates the growth of small nascent LDs into larger mature LDs. Seipin mediates the formation and stabilization of ER-LD contacts, enabling protein and lipid delivery from the ER into growing LDs, and regulates the maturation of ZFYVE1-positive nascent LDs. Additionally, it binds anionic phospholipids including phosphatidic acid and is essential for adipocyte differentiation and development. Seipin localizes to the endoplasmic reticulum membrane as a multi-pass membrane protein and is found at endoplasmic reticulum-lipid droplet contact sites, highlighting its strategic position in cellular lipid storage organelles.