Recombinant VPS50 protein (His tag)

Catalog Number	545704
Synonyms	Coiled-coil domain-containing protein 132; EARP/GARPII complex subunit VPS50
Species	Human
Expression System	E. coli
Accession	Q96JG6
Molecular Weight	Predictes a molecular mass of 48.37 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	84-486
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 84-486 aa (Q96JG6) 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 Syndetin (VPS50) Fragment (aa 84-486) is a high-quality, stable protein fragment derived from human Syndetin, also known as coiled-coil domain-containing protein 132. This 403-amino acid fragment is specifically designed for structural and biochemical studies, offering researchers a soluble and functional unit to investigate the role of Syndetin in endocytic recycling pathways. Syndetin, encoded by the VPS50 gene, functions as a key component of the EARP complex, which plays a critical role in endocytic recycling. The EARP complex localizes to Rab4-positive recycling endosomes and facilitates the return of internalized transferrin receptor (TFRC) to the plasma membrane, ensuring efficient receptor-mediated uptake processes. Syndetin is essential for tethering the EARP complex to recycling endosomes, though it is not involved in retrograde transport to the trans-Golgi network. Subcellular localization studies confirm its presence in recycling endosomes and membrane-associated fractions, dependent on interactions with EIPR1, highlighting its importance in intracellular trafficking and membrane dynamics.