Recombinant SUN2 protein (His tag)

Catalog Number	548461
Synonyms	Protein unc-84 homolog B; Rab5-interacting protein; Rab5IP; Sad1/unc-84 protein-like 2
Species	Human
Expression System	E. coli
Accession	Q9UH99
Molecular Weight	Predictes a molecular mass of 51.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 54 kDa band.

Product Information

Sequence Region	273-717
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 273-717 aa (Q9UH99) 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 SUN2 (273-717) Fragment is a high-purity protein product encompassing the critical SUN domain (residues 555-716) of SUN domain-containing protein 2. This fragment serves as an essential tool for investigating the molecular mechanisms of nucleocytoskeletal coupling, nuclear positioning, and intracellular transport, providing researchers with a focused reagent for domain-specific functional studies. The full-length SUN2 protein, encoded by the SUN2 gene in Homo sapiens, is a key component of the LINC (LInker of Nucleoskeleton and Cytoskeleton) complex. It is located in the inner nuclear membrane and functions to bridge the nuclear lamina and the cytoskeleton, facilitating the transmission of mechanical forces across the nuclear envelope. This interaction is vital for nuclear movement, positioning, and processes such as interkinetic nuclear migration and radial neuronal migration in the cerebral cortex. SUN2 also plays a role in meiosis by coupling telomeres to microtubules and is involved in telomere attachment to the nuclear envelope and gametogenesis. Additionally, it may function on endosome membranes as a receptor for RAB5-GDP, participating in RAB5 activation and endocytic pathways. The protein's localization spans the nucleus inner membrane, nuclear envelope, and endosome membrane, highlighting its diverse roles in cellular organization and dynamics.