Recombinant NCLN protein (His tag)

Catalog Number	545625
Synonyms	Nicalin; Nicastrin-like protein
Species	Human
Expression System	E. coli
Accession	Q969V3
Molecular Weight	Predictes a molecular mass of 55.74 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 56 kDa band.

Product Information

Sequence Region	43-522
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 43-522 aa (Q969V3) 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	This recombinant protein represents a stable and soluble fragment (amino acids 43-522) of human BOS complex subunit NCLN (Nicalin), a key regulator of multi-pass membrane protein insertion into the endoplasmic reticulum. This fragment is ideal for structural studies and biochemical assays investigating protein biogenesis mechanisms. Nicalin (NCLN) is an essential component of the multi-pass translocon (MPT) complex, which mediates the insertion of multi-pass membrane proteins into lipid bilayers after initial processing by the SEC61 complex. The MPT complex occludes the SEC61 lateral gate to facilitate insertion of subsequent transmembrane regions, playing a critical role in membrane protein biogenesis. Located in the endoplasmic reticulum membrane as a single-pass membrane protein, Nicalin may also function in developmental patterning by antagonizing Nodal signaling through interaction with NOMO. This protein's role in membrane protein insertion makes it significant for understanding protein trafficking and membrane biogenesis processes.