Recombinant CALX protein (His tag)

Catalog Number	542234
Synonyms	IP90; Major histocompatibility complex class I antigen-binding protein p88; p90
Species	Human
Expression System	E. coli
Accession	P27824
Molecular Weight	Predictes a molecular mass of 49.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 60 kDa band.

Product Information

Sequence Region	60-481
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 60-481 aa (P27824) 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 Calnexin (CANX) Fragment (60-481) is a high-quality protein product designed for structural and biochemical studies. This 422-amino acid fragment, derived from the endoplasmic reticulum chaperone Calnexin, offers a stable and soluble unit ideal for investigating protein folding, quality control mechanisms, and ER-associated processes in cellular and molecular research. Calnexin is a calcium-binding chaperone protein primarily located in the endoplasmic reticulum (ER) membrane, where it plays a critical role in the quality control of newly synthesized glycoproteins. It binds to monoglucosylated glycoproteins, assisting in protein assembly and retaining misfolded subunits within the ER. Beyond its chaperone functions, Calnexin is implicated in thymocyte maturation through interactions with T-cell receptor complexes and may contribute to synaptic endocytosis. The protein localizes to ER membranes, mitochondria-associated membranes (MAMs), and melanosomes, highlighting its diverse cellular roles in protein homeostasis and signaling pathways. The selected fragment (60-481) represents a computationally optimized region for experimental applications, excluding transmembrane domains to enhance solubility while retaining functional relevance.