Recombinant IMA3 protein (His tag)

Catalog Number	544041
Synonyms	Importin alpha Q1; Qip1; Karyopherin subunit alpha-4
Species	Human
Expression System	E. coli
Accession	O00629
Molecular Weight	Predictes a molecular mass of 50.33 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	46-486
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 46-486 aa (O00629) 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 Importin subunit alpha-3 (KPNA4) Fragment (residues 46-486) is a high-purity protein designed for nuclear transport and importin-substrate interaction studies. This 441-amino acid fragment offers a stable and soluble unit ideal for structural, biochemical, and functional analyses, supporting research on nuclear protein import mechanisms. Importin subunit alpha-3, encoded by the KPNA4 gene in Homo sapiens, functions as an adapter protein in nuclear protein import by binding directly to substrates containing classical or bipartite nuclear localization signal (NLS) motifs. It partners with importin-beta (KPNB1) to facilitate the docking and Ran-dependent translocation of cargo through the nuclear pore complex. This protein mediates the nuclear import of key substrates such as AARS1, MRTFA, and RANBP3, and is implicated in the nuclear transport of viral proteins, including human cytomegalovirus UL84. Localized to both the cytoplasm and nucleus, Importin alpha-3 plays a critical role in maintaining nucleocytoplasmic transport directionality through the asymmetric distribution of Ran-GTP/Ran-GDP.