Recombinant IMA1 protein (His tag)

Catalog Number	544689
Synonyms	Karyopherin subunit alpha-2; RAG cohort protein 1; SRP1-alpha
Species	Human
Expression System	E. coli
Accession	P52292
Molecular Weight	Predictes a molecular mass of 50.42 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 50 kDa band.

Product Information

Sequence Region	48-497
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 48-497 aa (P52292) 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-1 (KPNA2) fragment (residues 48-497) is a high-purity, soluble protein designed for nuclear transport studies. This stable fragment retains key functional regions, making it ideal for structural, biochemical, and import mechanism research. Importin subunit alpha-1 (KPNA2) functions as an adapter in nuclear protein import, directly binding substrates with nuclear localization signals (NLS). It partners with KPNB1 to dock at nuclear pore complexes, enabling Ran-dependent translocation into the nucleus. The protein localizes to both the cytoplasm and nucleus and is implicated in the nuclear import of mediators like the PR-DUB complex component BAP1. Notably, during viral infection, it can be retained in ER/Golgi membranes by SARS-CoV ORF6. The recombinant fragment (48-497) provides a stable, soluble unit for investigating these critical nuclear transport mechanisms.