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Product Information

Importin $\alpha 2$

human, recombinant, expressed in *E. coli*

Catalog Number **I9656**

Storage Temperature -70°C

CAS RN: 672548-58-2 (untagged 529 amino acid protein)

Synonyms: hSRP1 α ; Karyopherin $\alpha 2$; Rch1

Product Description

Human Importin $\alpha 2$ is expressed in *E. coli* as an N-terminal histidine tagged protein. It has an apparent molecular weight of 60 kDa (SDS-PAGE). The recombinant protein specifically binds NLS-BSA-Rhodamine.

The importin α (karyopherin α , Imp α) family consists of nuclear transport adapter proteins with molecular weights of ~ 60 kDa. Importin α links the import receptor, importin β (karyopherin $\beta 1$, p97, Imp β), with cargo proteins containing classical nuclear localization signal (NLS). Binding of importin β to importin α increases the affinity of the importin α NLS binding domain to the cargo protein. Formation of the Imp α /Imp β /cargo complex triggers the binding of importin β to the nuclear pore complex (NPC) and subsequent import of the entire complex into the nucleus. Inside the nucleus, the cargo protein and importin α are released from the complex upon binding of Ran-GTP to importin β . Importin α is recycled back to the cytoplasm by CAS, an importin α specific export receptor.

Purity: $\geq 90\%$ (SDS -PAGE)

Reagent

Supplied as a solution in 20 mM HEPES-KOH, pH 7.3, 100 mM potassium acetate, 2 mM DTT, 5% glycerol, and 0.02% TRITON[®] X-100.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

The product ships on dry ice and storage at -70°C is recommended

References

1. Gorlich, D., and Kutay, U., *Annu. Rev. Cell. Dev. Biol.*, **15**, 607-660 (1999).
2. Nakielny, S., and Dreyfuss, G., *Cell*, **99**, 677-690 (1999).
3. Kohler, M. et al., *Mol. Cell. Biol.*, **19**, 7782-7791 (1999).
4. Conti, E., and Izaurralde, E., *Curr. Opin. Cell. Biol.*, **13**, 310-319 (2001).

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ES-S.,KAA,PHC 09/06-1

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