

## ARG41080 anti-KPNA2 / IPOA1 antibody

Package: 100 µl  
Store at: -20°C

### Summary

|                     |   |
|---------------------|---|
| Product Description | Rabbit Polyclonal antibody recognizes KPNA2 / IPOA1   |
| Tested Reactivity   | Hu, Ms, Rat   |
| Tested Application  | FACS, WB  |
| Host                | Rabbit  |
| Clonality           | Polyclonal  |
| Isotype             | IgG   |
| Target Name         | KPNA2 / IPOA1   |
| Species             | Human   |
| Immunogen           | Synthetic peptide derived from Human KPNA2.   |
| Conjugation         | Un-conjugated   |
| Alternate Names     | Karyopherin subunit alpha-2; SRP1alpha; Importin subunit alpha-1; QIP2; RCH1; IPOA1; SRP1-alpha; RAG cohort protein 1 |

### Application Instructions

| Application table | Application  | Dilution        |
|-------------------|--|-----------------|
|                   | FACS   | 1:50            |
|                   | WB   | 1:1000 - 1:5000 |
| Application Note  | * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist. |                 |
| Observed Size     | 53 kDa   |                 |

### Properties

|                     |   |
|---------------------|---|
| Form                | Liquid  |
| Purification        | Affinity purified.  |
| Buffer              | PBS (pH 7.4), 150 mM NaCl, 0.02% Sodium azide and 50% Glycerol.   |
| Preservative        | 0.02% Sodium azide  |
| Stabilizer          | 50% Glycerol  |
| Storage instruction | For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use. |
| Note                | For laboratory research only, not for drug, diagnostic or other use.  |

Bioinformation

|                       |  |
|-----------------------|--|
| Gene Symbol           | KPNA2  |
| Gene Full Name        | karyopherin alpha 2 (RAG cohort 1, importin alpha 1)   |
| Background            | The import of proteins into the nucleus is a process that involves at least 2 steps. The first is an energy-independent docking of the protein to the nuclear envelope and the second is an energy-dependent translocation through the nuclear pore complex. Imported proteins require a nuclear localization sequence (NLS) which generally consists of a short region of basic amino acids or 2 such regions spaced about 10 amino acids apart. Proteins involved in the first step of nuclear import have been identified in different systems. These include the Xenopus protein importin and its yeast homolog, SRP1 (a suppressor of certain temperature-sensitive mutations of RNA polymerase I in Saccharomyces cerevisiae), which bind to the NLS. KPNA2 protein interacts with the NLSs of DNA helicase Q1 and SV40 T antigen and may be involved in the nuclear transport of proteins. KPNA2 also may play a role in V(D)J recombination [provided by RefSeq, Jul 2008] |
| Function              | Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1. Binds specifically and directly to substrates containing either a simple or bipartite NLS motif. Docking of the importin/substrate complex to the nuclear pore complex (NPC) is mediated by KPNB1 through binding to nucleoporin FxFG repeats and the complex is subsequently translocated through the pore by an energy requiring, Ran-dependent mechanism. At the nucleoplasmic side of the NPC, Ran binds to importin-beta and the three components separate and importin-alpha and -beta are re-exported from the nucleus to the cytoplasm where GTP hydrolysis releases Ran from importin. The directionality of nuclear import is thought to be conferred by an asymmetric distribution of the GTP- and GDP-bound forms of Ran between the cytoplasm and nucleus. [UniProt]  |
| Calculated Mw         | 58 kDa   |
| Cellular Localization | Cytoplasm. Nucleus. [UniProt]  |

Images

