

DESCRIPTION

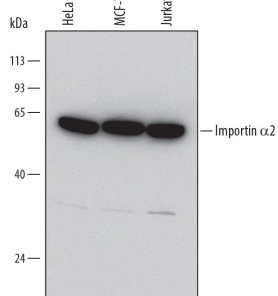
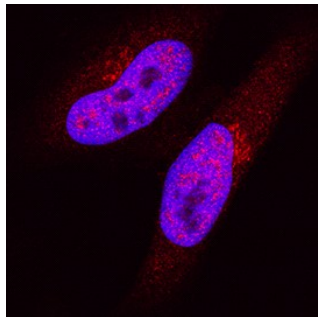
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| Species Reactivity | Human |
| Specificity | Detects human Importin α 2/KPNA2 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human KPNA1, A3, A4, A5, or B1 is observed. |
| Source | Monoclonal Mouse IgG _{2A} Clone # 682239 |
| Purification | Protein A or G purified from hybridoma culture supernatant |
| Immunogen | <i>E. coli</i> -derived recombinant human Importin α 2/KPNA2 Ser2-Asp132 Accession # P52292 |
| Formulation | Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μ m filtered solution in PBS. |

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

| | Recommended Concentration | Sample |
|----------------------------|---------------------------|-----------|
| Western Blot | 0.1 μ g/mL | See Below |
| Immunocytochemistry | 8-25 μ g/mL | See Below |

DATA

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| <p>Western Blot</p>  <p>Detection of Human Importin α2/KPNA2 by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line, MCF-7 human breast cancer cell line, and Jurkat human acute T cell leukemia cell line. PVDF Membrane was probed with 0.1 μg/mL of Mouse Anti-Human Importin α2/KPNA2 Monoclonal Antibody (Catalog # MAB6207) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Importin α2/KPNA2 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p> | <p>Immunocytochemistry</p>  <p>Importin α2/KPNA2 in HeLa Human Cell Line. Importin α2/KPNA2 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human Importin α2/KPNA2 Monoclonal Antibody (Catalog # MAB6207) at 8 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p> |
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PREPARATION AND STORAGE

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| Reconstitution | Sterile PBS to a final concentration of 0.5 mg/mL. |
| Shipping | The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C |
| Stability & Storage | Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution. |

BACKGROUND

Importin α 2, also known as KPNA2 (Karyopherin subunit alpha 2), SRP1a, or RAG1, is a 58-60 kDa member of the Importin alpha family of proteins. It is ubiquitously expressed, and found in both nucleus and cytoplasm. Importin α 2 functions as a cargo carrier that transports various complexes from cytoplasm into nucleus. For the MRN DNA repair complex, Importin α 2 first binds to NBS1, and then to Importin β 1, which mediates movement through the nuclear pore. Human Importin α 2 is 529 amino acids (aa) in length. It contains an N-terminal IBB/Importin β domain (aa 2-60), ten Armadillo repeats that bind "cargo" (aa 71-496) and two intervening NLS binding sites. There is one splice variant that shows a deletion of aa 72-310, coupled to an 11 aa substitution for aa 389-406. Over aa 1-132, human Importin α 2 shares 94% aa identity with mouse Importin α 2.