

DESCRIPTION

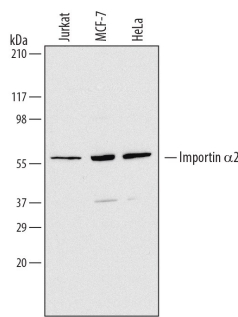
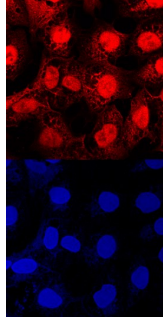
Species Reactivity	Human
Specificity	Detects human Importin α 2/KPNA2 in Western blots.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant human Importin α 2/KPNA2 Met1-Asp132 Accession # P52292
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied 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	0.5 μ g/mL	See Below
Immunocytochemistry	5-15 μ g/mL	See Below

DATA

<p>Western Blot</p> 	<p>Detection of Human Importin α2/KPNA2 by Western Blot. Western blot shows lysates of Jurkat human acute T cell leukemia cell line, MCF-7 human breast cancer cell line, and HeLa human cervical epithelial carcinoma cell line. PVDF Membrane was probed with 0.5 μg/mL of Sheep Anti-Human Importin α2/KPNA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6207) followed by HRP-conjugated Anti-Sheep IgG Secondary Antibody (Catalog # HAF016). A specific band was detected for Importin α2/KPNA2 at approximately 60 kDa (as indicated). This experiment was conducted under reducing conditions and using <i>Immunoblot Buffer Group 1</i>.</p>	<p>Immunocytochemistry</p>  <p>Importin α2/KPNA2 in NTERA-2 Human Cell Line. Importin α2/KPNA2 was detected in immersion fixed NTERA-2 human testicular embryonic carcinoma cell line using Sheep Anti-Human Importin α2/KPNA2 Antigen Affinity-purified Polyclonal Antibody (Catalog # AF6207) at 10 μg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Sheep IgG Secondary Antibody (red, upper panel; Catalog # NL010) and counterstained with DAPI (blue, lower panel). 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

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
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

KPNA2 (Karyopherin subunit alpha 2; also SRP1 α , importin subunit α 2 and 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. KPNA2 functions as a cargo carrier that transports various complexes from cytoplasm into nucleus. For the MRN DNA repair complex, KPNA2 first binds to NBS1, and then to importin β 1, which mediates movement through the nuclear pore. Human KPNA2 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 three intervening NLSs. 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 KPNA2 shares 94% aa identity with mouse KPNA2.