


## Product datasheet

# Anti-KPNA2 antibody [EPR11716(B)] ab170495

Recombinant RabMAb

[2 References](#) [3 Images](#)

### Overview

<b>Product name</b>	Anti-KPNA2 antibody [EPR11716(B)]
<b>Description</b>	Rabbit monoclonal [EPR11716(B)] to KPNA2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt (Intra), WB <b>Unsuitable for:</b> ICC/IF, IHC-P or IP
<b>Species reactivity</b>	<b>Reacts with:</b> Rat, Human <b>Predicted to work with:</b> Mouse 
<b>Immunogen</b>	Synthetic peptide within Human KPNA2. The exact sequence is proprietary. Database link: <a href="#">P52292</a>
<b>Positive control</b>	Permeabilized 293T cells; HeLa, HepG2, Jurkat, 293T and C6 cell lysates.
<b>General notes</b>	This product is a recombinant monoclonal antibody, which offers several advantages including: <ul style="list-style-type: none"><li>- High batch-to-batch consistency and reproducibility</li><li>- Improved sensitivity and specificity</li><li>- Long-term security of supply</li><li>- Animal-free production</li></ul> For more information <a href="#">see here</a> . Our RabMAb <sup>®</sup> technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to <a href="#">RabMAb<sup>®</sup> patents</a> .

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture supernatant
<b>Purity</b>	Tissue culture supernatant
<b>Clonality</b>	Monoclonal

Clone number                   EPR11716(B)

Isotype                            IgG

## Applications

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**The Abpromise guarantee**           Our **Abpromise guarantee** covers the use of ab170495 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		1/10 - 1/100. <b>ab172730</b> - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
WB		1/10000 - 1/50000. Predicted molecular weight: 58 kDa.

**Application notes**                    Is unsuitable for ICC/IF, IHC-P or IP.

## Target

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**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.

**Tissue specificity**                    Expressed ubiquitously.

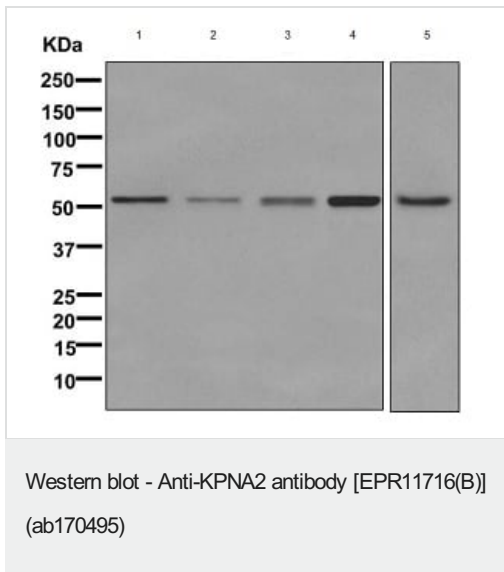
**Sequence similarities**                Belongs to the importin alpha family.  
Contains 10 ARM repeats.  
Contains 1 IBB domain.

**Domain**                                 Consists of an N-terminal hydrophilic region, a hydrophobic central region composed of 10 repeats, and a short hydrophilic C-terminus. The N-terminal hydrophilic region contains the importin beta binding domain (IBB domain), which is sufficient for binding importin beta and essential for nuclear protein import.  
The IBB domain is thought to act as an intrasteric autoregulatory sequence by interacting with the internal autoinhibitory NLS. Binding of KPNB1 probably overlaps the internal NLS and contributes to a high affinity for cytoplasmic NLS-containing cargo substrates. After dissociation of the importin/substrate complex in the nucleus the internal autoinhibitory NLS contributes to a low affinity for nuclear NLS-containing proteins.  
The major and minor NLS binding sites are mainly involved in recognition of simple or bipartite NLS motifs. Structurally located within a helical surface groove they contain several conserved Trp and Asn residues of the corresponding third helices (H3) of ARM repeats which mainly contribute to binding.

**Cellular localization**                Cytoplasm. Nucleus.

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## Images



**All lanes** : Anti-KPNA2 antibody [EPR11716(B)] (ab170495) at 1/10000 dilution

**Lane 1** : HeLa cell lysate

**Lane 2** : HepG2 cell lysate

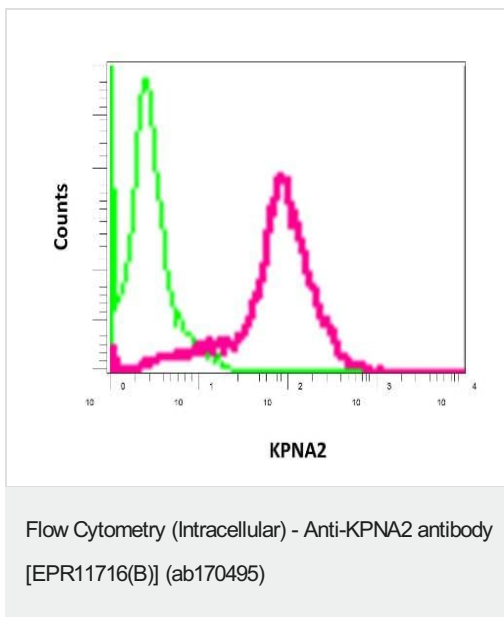
**Lane 3** : Jurkat cell lysate

**Lane 4** : 293T cell lysate

**Lane 5** : C6 cell lysate

Lysates/proteins at 10 µg per lane.

**Predicted band size:** 58 kDa



Intracellular flow cytometric analysis of permeabilized 293T cells labeling KPNA2 with ab170495 at 1/10 dilution (red) or a rabbit IgG negative control (green).

Why choose a recombinant antibody?

**Research with confidence**  
Consistent and reproducible results

**Long-term and scalable supply**  
Recombinant technology

**Success from the first experiment**  
Confirmed specificity

**Ethical standards compliant**  
Animal-free production

Anti-KPNA2 antibody [EPR11716(B)] (ab170495)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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