abcam

ab307439

Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR26346-53
Concentration	1.014 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Tested

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Mouse, Rat
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Human, Mouse
Dilution info	-
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Tested

Species	Human
Dilution info	-
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information KPNA1

Function

Functions in nuclear protein import as an adapter protein for nuclear receptor KPNB1 (PubMed:27713473, PubMed:7892216, PubMed:8692858). Binds specifically and directly to substrates containing either a simple or bipartite NLS motif (PubMed:27713473, PubMed:7892216, PubMed:8692858). 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 (PubMed:27713473, PubMed:7892216). 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 (PubMed:7892216). 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 (PubMed:7892216). Mediator of PR-DUB complex component BAP1 nuclear import; acts redundantly with KPNA2 and Transportin-1/TNPO1 (PubMed:35446349). (Microbial infection) In vitro, mediates the nuclear import of human cytomegalovirus UL84 by recognizing a non-classical NLS.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

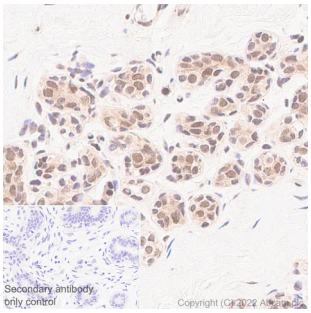
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

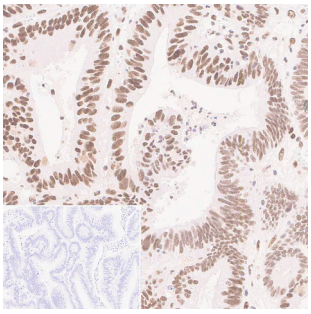
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12 product images



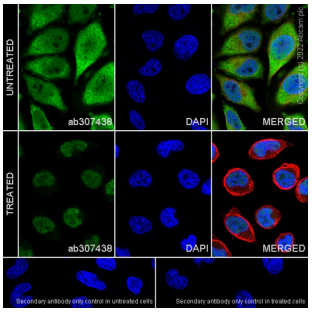
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Immunohistochemical analysis of paraffin-embedded human breast tissue labeling Importin subunit alpha with ab307438 at 1/2000 dilution (0.251 ug/ml) followed by ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Positive staining on human breast (PMID: 34709479). The section was incubated with ab307438 for 30 mins at room temperature. The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin. Secondary antibody only control: Secondary antibody is ready to use LeicaDS9800 (Bond® Polymer Refine Detection). Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



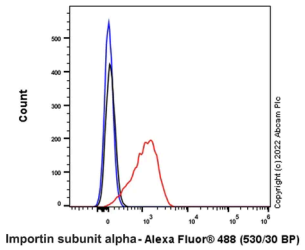
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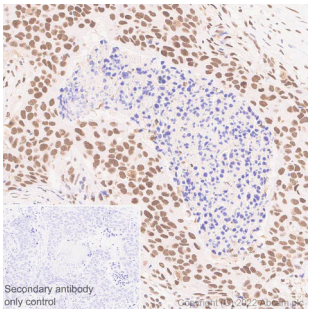
Immunocytochemistry/ Immunofluorescence - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human cervical adenocarcinoma epithelial cell) cells labelling Importin subunit alpha with ab307438 at 1/50 dilution (10.02 ug/ml) followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (2 ug/ml) (Green). Confocal image showing cytoplasmic and nuclear staining in untreated HeLa cells, and the signals were translocated to nucleus in HeLa cells after treatment with heat shock (45.5°C) for 1.5 h. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 ug/ml) (Red). The nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (2 ug/ml).



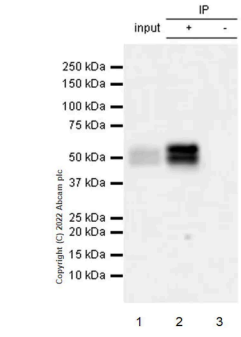
Flow Cytometry (Intracellular) - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HepG2 (human hepatocellular carcinoma epithelial cell) cells labelling Importin subunit alpha with ab307438 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.



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Immunoprecipitation - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

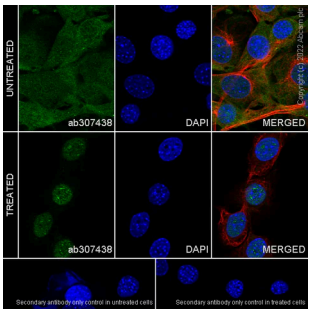
This data was produced using ab307438, the same clone but in a different formulation. Importin subunit alpha was immunoprecipitated from 0.35 mg HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate with ab307438 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab307438 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution. Lane 1: HepG2 whole cell lysate Lane 2: ab307438 IP in HepG2 whole cell lysate Lane 3: Rabbit monoclonal IgG (ab172730) instead

of ab307438 in HepG2 whole cell lysate Blocking and dilution buffer and concentration: 5% NFDM/TBST. Exposure time: 10 seconds.
All lanes:
Immunoprecipitation - Anti-Importin subunit alpha antibody [EPR26346-53] (ab307438) at 1/1000 dilution

All lanes:
HepG2 whole cell lysate at 10 µg

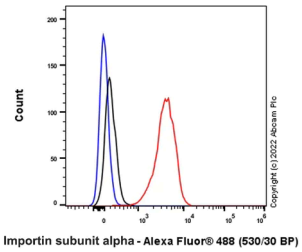
Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution



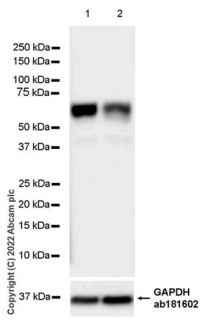
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Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST. In Western blot, anti-GAPDH antibody (ab181602) loading control staining at 1/200000 dilution. Exposure time: 39 seconds.
All lanes:
Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] (ab307438) at 1/1000 dilution

Lane 1:

HeLa (human cervix adenocarcinoma epithelial cell) transfected with scrambled siRNA control whole cell lysate at 20 µg

Lane 2:
HeLa transfected with siRNA specifically targeting SRP1 whole cell lysate at 20 µg

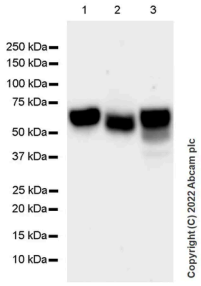
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 39s



Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

Blocking and diluting buffer and concentration: 5% NFDM/TBST. Exposure time: 26 seconds.
All lanes:
Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] (ab307438) at 1/1000 dilution

Lane 1:
HeLa (human cervical adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
Jurkat (human T cell leukemia T lymphocyte from peripheral blood) whole cell lysate at 20 µg

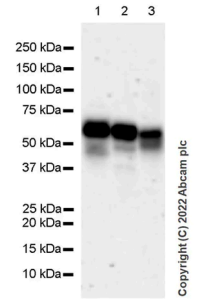
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 26s



Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST. Exposure time: 147 seconds.
All lanes:
Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] (ab307438) at 1/1000 dilution

Lane 1:
Human cerebellum tissue lysate at 20 µg

Lane 2:
Human heart tissue lysate at 20 µg

Lane 3:
Human kidney tissue lysate at 20 µg

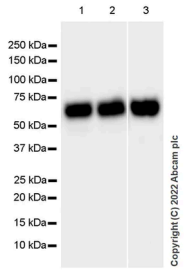
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 147s



Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] - BSA and Azide free (ab307439)

This data was produced using ab307438, the same clone but in a different formulation. Blocking and diluting buffer and concentration: 5% NFDM/TBST. Exposure time: 37 seconds.
All lanes:
Western blot - Anti-Importin subunit alpha antibody [EPR26346-53] (ab307438) at 1/1000 dilution

Lane 1:
Mouse brain tissue lysate at 20 µg

Lane 2:
Rat brain tissue lysate at 20 µg

Lane 3:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 60 kDa

Observed band size: 60 kDa

Exposure time: 37s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.