abcam

ab54353

Anti-TNPO3 antibody [3152C2a]

Key facts

Isotype	IgG2b
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.05% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	Recombinant Fragment Protein within Human TNPO3. The exact immunogen used to generate this antibody is proprietary information. Database link Q9Y5L0
Clone number	3152C2a
Purification technique	Affinity purification Protein G
Concentration	0.1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →
Purification notes	This antibody was purified using protein G column chromatography from culture supernatant of hybridoma cultured in a medium containing bovine IgG-depleted(approximately 95%) fetal bovine serum.

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	5 µg/mL
Notes	

Perform heat-mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Expected

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

Flow Cyt

Tested

Species	Human
Dilution info	1 µg for 10^6 Cells
Notes	ab170192 - Mouse monoclonal IgG2b, is suitable for use as an isotype control with this antibody.

Expected

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

WB

Tested

Species	Mouse
Dilution info	1/50 - 1/100
Notes	-

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Target data

See full target information TNPO3

Function	Importin, which transports target proteins into the nucleus (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914). Specifically mediates the nuclear import of splicing factor serine/arginine (SR) proteins, such as RBM4, SFRS1 and SFRS2, by recognizing phosphorylated SR domains (PubMed:10366588, PubMed:10713112, PubMed:11517331, PubMed:12628928, PubMed:24449914). Also mediates the nuclear import of serine/arginine (SR) protein CPSF6, independently of CPSF6 phosphorylation (PubMed:30916345, PubMed:31465518). The nuclear import process is regulated by the small GTPase Ran that partitions between cytoplasm and nucleus in the predominantly GDP- and GTP-bound form, respectively (PubMed:23878195, PubMed:24449914). Importin associates with target cargo proteins in the cytoplasm, and the competitive binding of GTP-bound Ran induces the release of cargos in the nucleus (PubMed:23878195, PubMed:24449914). (Microbial infection) Involved in immunodeficiency virus (HIV-1) infection by importing the pre-integration complex (PIC) into the nucleus (PubMed:18722123, PubMed:21901095, PubMed:22398280, PubMed:29329553). Required for a nuclear maturation step of HIV-1 prior to integration (PubMed:21901095, PubMed:22398280).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	Up to 12 months
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C

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

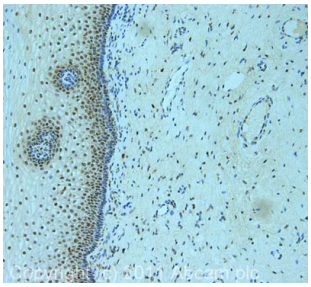
We do not recommend this combination. It is not covered by our product promise.

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.

4 product images

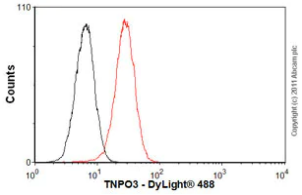


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TNPO3 antibody [3152C2a] (ab54353)

TNPO3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using mouse Anti-TNPO3 antibody

IHC image of ab54353 staining in human normal cervix formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab54353, 5µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

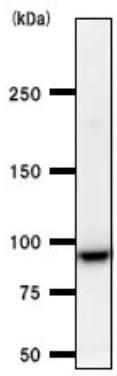
For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.



Flow Cytometry - Anti-TNPO3 antibody [3152C2a] (ab54353)

TNPO3 Flow Cytometry staining using mouse Anti-TNPO3 antibody

Overlay histogram showing HeLa cells stained with ab54353 (red line). The cells were fixed with 4% paraformaldehyde (10 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab54353, 1µg/1x10^6 cells) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-mouse IgG (H+L) (ab96879) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG2b [PLPV219] (ab91366, 2µg/1x10^6 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in HeLa cells fixed with 80% methanol/permeabilized in 0.1% PBS-Tween used under the same conditions.



Western blot - Anti-TNPO3 antibody [3152C2a] (ab54353)

All lanes:
Western blot - Anti-TNPO3 antibody [3152C2a] (ab54353) at 1/50 dilution

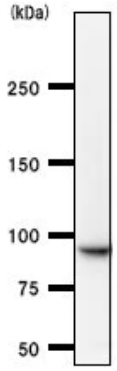
All lanes:
NIH3T3 whole cell lysate at 25 µg

Secondary

All lanes:
anti Mouse IgG at 1/2500 dilution

Predicted band size: 104 kDa

Observed band size: ~90 kDa



Western blot - Anti-TNPO3 antibody [3152C2a] (ab54353)

All lanes:
Western blot - Anti-TNPO3 antibody [3152C2a] (ab54353) at 1/100 dilution

All lanes:
HeLa whole cell lysate at 25 µg

Secondary

All lanes:
anti Mouse IgG at 1/2500 dilution

Predicted band size: 104 kDa

Observed band size: ~90 kDa

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