abcam

ab326567

Anti-NPM1-mutated antibody [EPR30901-1]

Recombinant | RabMAb | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR30901-1
Purification technique	Affinity purification Protein A
Specificity	To construct overexpressed cells, the tag need to be at the N-terminal.
Concentration	0.483 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell line - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/500
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	1/5000
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Synthetic peptide - Human
Dilution info	-
Notes	-

Dot

Tested

Species	Synthetic peptide - Human
Dilution info	1/1000
Notes	-

Predicted

Species	Human
Dilution info	-
Notes	-

Not recommended

Species	Transfected cell lysate - Human, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information NPM1 mutated

Function	Involved in diverse cellular processes such as ribosome biogenesis, centrosome duplication, protein chaperoning, histone assembly, cell proliferation, and regulation of tumor suppressors p53/TP53 and ARF. Binds ribosome presumably to drive ribosome nuclear export. Associated with nucleolar ribonucleoprotein structures and bind single-stranded nucleic acids. Acts as a chaperonin for the core histones H3, H2B and H4. Stimulates APEX1 endonuclease activity on apurinic/apyrimidinic (AP) double-stranded DNA but inhibits APEX1 endonuclease activity on AP single-stranded RNA. May exert a control of APEX1 endonuclease activity within nucleoli devoted to repair AP on rDNA and the removal of oxidized rRNA molecules. In concert with BRCA2, regulates centrosome duplication. Regulates centriole duplication: phosphorylation by PLK2 is able to trigger centriole replication. Negatively regulates the activation of EIF2AK2/PKR and suppresses apoptosis through inhibition of EIF2AK2/PKR autophosphorylation. Antagonizes the inhibitory effect of ATF5 on cell proliferation and relieves ATF5-induced G2/M blockade (PubMed:22528486). In complex with MYC enhances the transcription of MYC target genes (PubMed:25956029). May act as chaperonin or cotransporter in the nucleolar localization of transcription termination factor TTF1 (By similarity).

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

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.

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

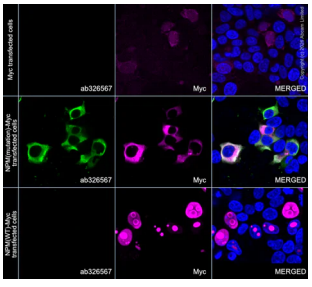
We do not recommend this combination. It is not covered by our product promise.

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



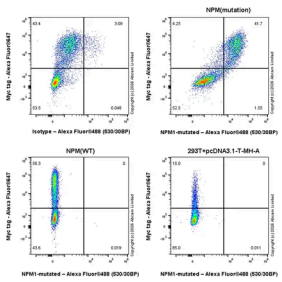
Immunocytochemistry/ Immunofluorescence - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567)

NPM1-mutated Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-NPM1-mutated antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T cells transfected with empty vector containing a myc-HA-tag®
293T cells transfected with a human NPM1(mutation) expression vector containing a myc-HA-tag®
293T cells transfected with a human wild-type NPM1 expression vector containing a myc-HA-tag®
labelling NPM1-mutated with ab326567 at 1/500 (0.966 µg/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 dilution (Green).

Confocal image showing positive staining in 293T cells transfected with a human NPM1(mutation) expression vector containing a myc-HA-tag® (shown in green). The counterstain was observed in magenta. Nuclear DNA was labelled with DAPI (shown in blue). Image was taken with a confocal microscope (Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/100 dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

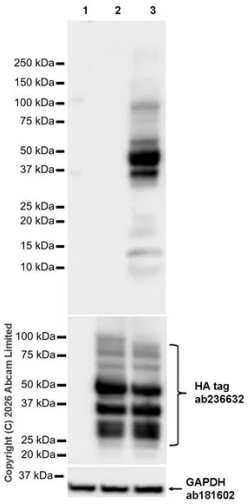


Flow Cytometry (Intracellular) - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567)

NPM1-mutated Flow Cytometry (Intracellular) staining using rabbit Anti-NPM1-mutated antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized
293T cells transfected with a human NPM (mutation) expression vector containing a HA-Myc-tag® (Upper)
293T cells transfected with a human NPM (WT) expression vector containing a HA-Myc-tag® (Lower left)
293T cells transfected with an empty expression vector containing a myc-His-tag® (Lower right) labelling NPM1-mutated with ab326567 at 1/5000 dilution (0.01ug) / Upper right and Lower left/right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.



Western blot - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567)

NPM1-mutated Western blot staining using rabbit Anti-NPM1-mutated antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab236632) (1:200000) (36KDa);Anti-HA tag® antibody- (ab236632) (1:1000)(30-100KDa).

All lanes:
Western blot - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a Myc-HA-tag, whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human wild-type NPM1 expression vector containing a Myc-HA-tag, whole cell lysate at 20 µg

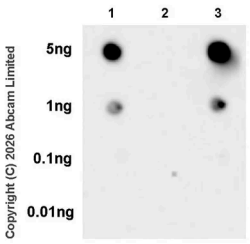
Lane 3:
293T cells transfected with a human NPM1(mutation) expression vector containing a Myc-HA-tag, whole cell lysate at 20 µg

Secondary

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

Observed band size: 30-100 kDa, 36 kDa

Exposure time: 3s



Dot Blot - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567)

NPM1-mutated Dot Blot staining using rabbit Anti-NPM1-mutated antibody

Dot blot analysis of NPM1-mutated using ab326567 at 1:1000 (0.483 µg/ml) followed by a Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1:100,000 dilution.

Lane 1: Human NPM1 mutant peptide

Lane 2: Human NPM1 wide-type peptide

Lane 3: Human NPM1 mutant C-terminus sequence

Exposure time: 10 seconds.

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

All lanes:
Dot Blot - Anti-NPM1-mutated antibody [EPR30901-1] (ab326567) at 1/1000 dilution

Lane 1:
Human NPM1 mutant peptide

Lane 2:
Human NPM1 wide-type peptide

Lane 3:
Human NPM1 mutant C-terminus sequence

Secondary

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

Exposure time: 10s

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