

Product datasheet

Anti-TPX2 antibody [EPR23182-47] **ab252944**

Recombinant **RabMAb**

1 References [10 Images](#)

Overview

Product name	Anti-TPX2 antibody [EPR23182-47]
Description	Rabbit monoclonal [EPR23182-47] to TPX2
Host species	Rabbit
Tested applications	Suitable for: Flow Cyt (Intra), WB, IHC-P, ICC/IF Unsuitable for: IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HEK-293, RAW264.7, L6 and Raji whole cell lysate. IHC-P: Human colon cancer, lung cancer, mouse and rat colon tissue. ICC/IF: RAW264.7 and HeLa cells. Flow Cyt (intra): HeLa cells.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	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.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR23182-47

Isotype

IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab252944 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)		1/50.
WB		1/1000. Predicted molecular weight: 86 kDa.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/50.

Application notes

Is unsuitable for IP.

Target

Function

Spindle assembly factor. Required for normal assembly of mitotic spindles. Required for normal assembly of microtubules during apoptosis. Required for chromatin and/or kinetochore dependent microtubule nucleation. Mediates AURKA localization to spindle microtubules. Activates AURKA by promoting its autophosphorylation at 'Thr-288' and protects this residue against dephosphorylation.

Tissue specificity

Expressed in lung carcinoma cell lines but not in normal lung tissues.

Sequence similarities

Belongs to the TPX2 family.

Developmental stage

Exclusively expressed in proliferating cells from the transition G1/S until the end of cytokinesis.

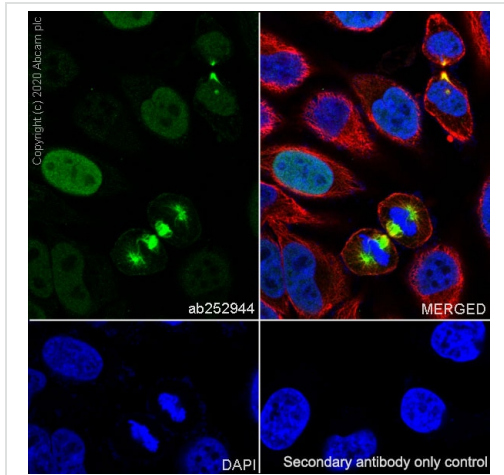
Post-translational modifications

Phosphorylated upon DNA damage, probably by ATM or ATR.

Cellular localization

Nucleus. Cytoplasm > cytoskeleton > spindle. Cytoplasm > cytoskeleton > spindle pole. During mitosis it is strictly associated with the spindle pole and with the mitotic spindle, whereas during S and G2, it is diffusely distributed throughout the nucleus. Is released from the nucleus in apoptotic cells and is detected on apoptotic microtubules.

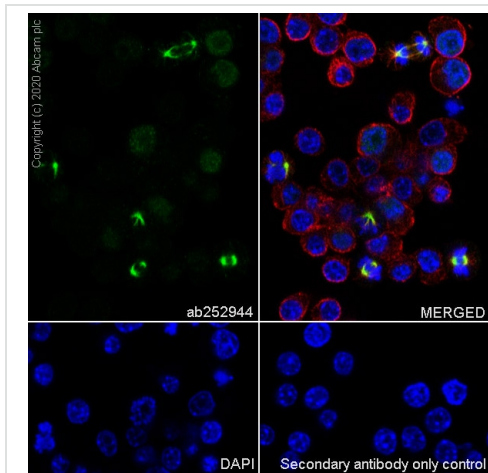
Images



Immunocytochemistry/ Immunofluorescence - Anti-TPX2 antibody [EPR23182-47] (ab252944)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa cells labeling TPX2 with ab252944 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in HeLa cells. **ab195889** Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

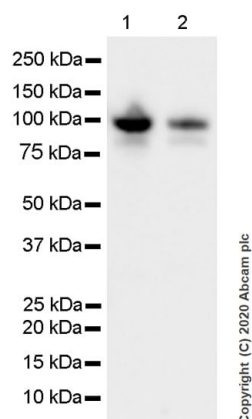
Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Immunocytochemistry/ Immunofluorescence - Anti-TPX2 antibody [EPR23182-47] (ab252944)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized RAW 264.7 cells labeling TPX2 with ab252944 at 1/50 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (Green). Confocal image showing positive staining in RAW 264.7 cells. **ab195889** Anti-alpha Tubulin antibody (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (Red). The nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) at 1/1000 dilution.



Western blot - Anti-TPX2 antibody [EPR23182-47]
(ab252944)

All lanes : Anti-TPX2 antibody [EPR23182-47] (ab252944) at 1/1000 dilution

Lane 1 : RAW264.7 (mouse Abelson murine leukemia virus-induced tumor macrophage), whole cell lysate

Lane 2 : L6 (rat skeletal muscle myoblast), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 86 kDa

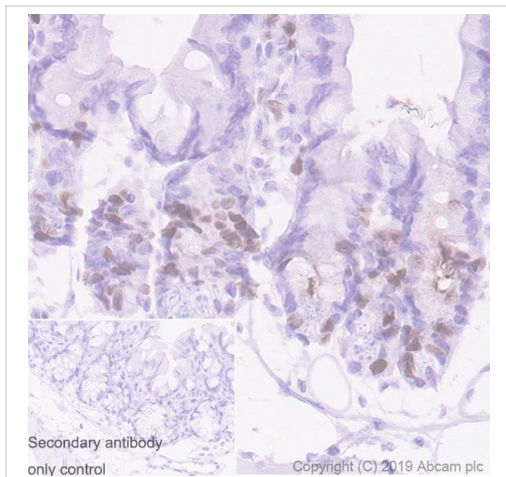
Blocking and diluting buffer and concentration: 5% NFDM/TBST.

The molecular weight observed is consistent with what has been described in the literature (PMID:25239289, 16489064).

The lower bands are mainly caused by degradation (PMID:16287863).

Lysates should be made freshly and used in WB immediately to minimize protein degradation.

Exposure time: 26 secs.

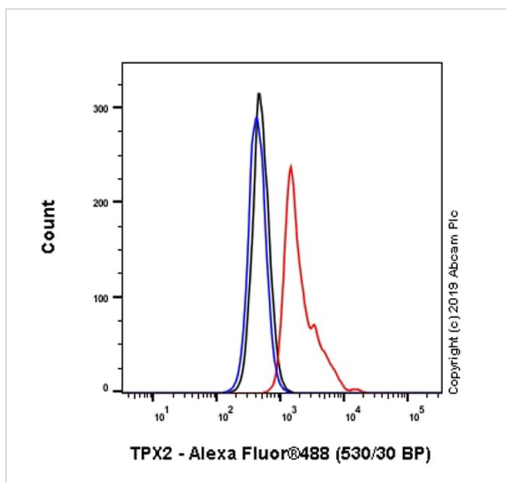


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody
[EPR23182-47] (ab252944)

Immunohistochemical analysis of paraffin-embedded mouse colon tissue labeling TPX2 with ab252944 at 1/1000 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in proliferative cells of mouse colon (PMID:23634259). Counterstained with hematoxylin.

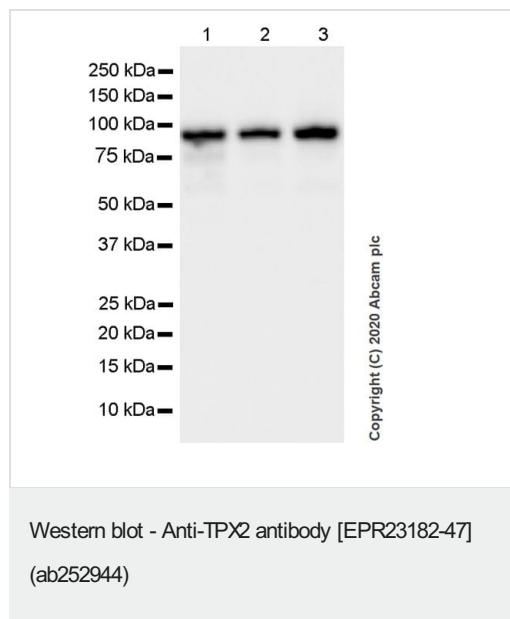
Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using [ab93684](#) (Tris/EDTA buffer, pH 9.0).



Flow Cytometry (Intracellular) - Anti-TPX2 antibody
[EPR23182-47] (ab252944)

Intracellular flow cytometric analysis of 80% methanol fixed 0.1% Tween-20 permeabilized HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling TPX2 with ab252944 at 1/50 (Red) compared with a Rabbit monoclonal IgG ([ab172730](#)) (Black) isotype control and an unlabeled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat anti rabbit IgG (Alexa Fluor[®] 488, [ab150077](#)) at 1/2000 dilution was used as the secondary antibody.



All lanes : Anti-TPX2 antibody [EPR23182-47] (ab252944) at 1/1000 dilution

Lane 1 : HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate

Lane 2 : HEK-293 (human embryonic kidney epithelial cell), whole cell lysate

Lane 3 : Raji (human Burkitt's lymphoma B lymphocyte), whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/50000 dilution

Predicted band size: 86 kDa

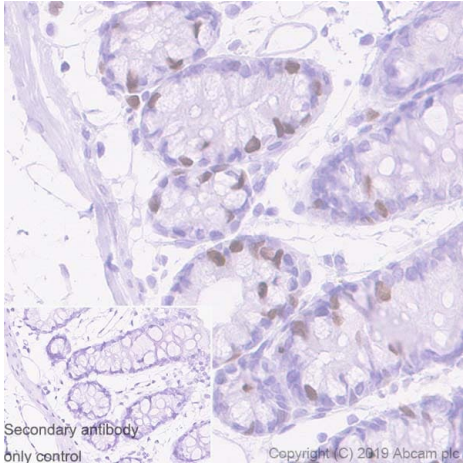
Observed band size: 100 kDa

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

The molecular weight observed is consistent with what has been described in the literature (PMID:25239289, 16489064).

Lysates should be made freshly and used in WB immediately to minimize protein degradation.

Exposure time: 3 secs.

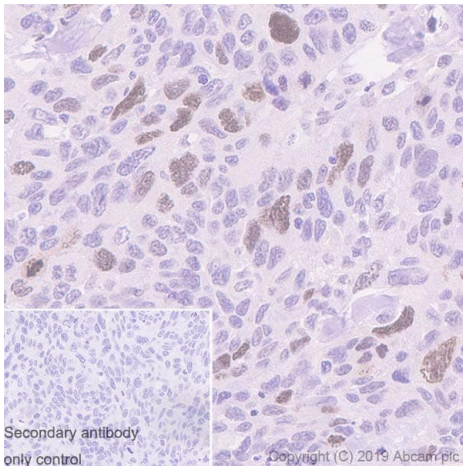


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody
[EPR23182-47] (ab252944)

Immunohistochemical analysis of paraffin-embedded rat colon tissue labeling TPX2 with ab252944 at 1/1000 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in proliferative cells of rat colon (PMID:23634259). Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

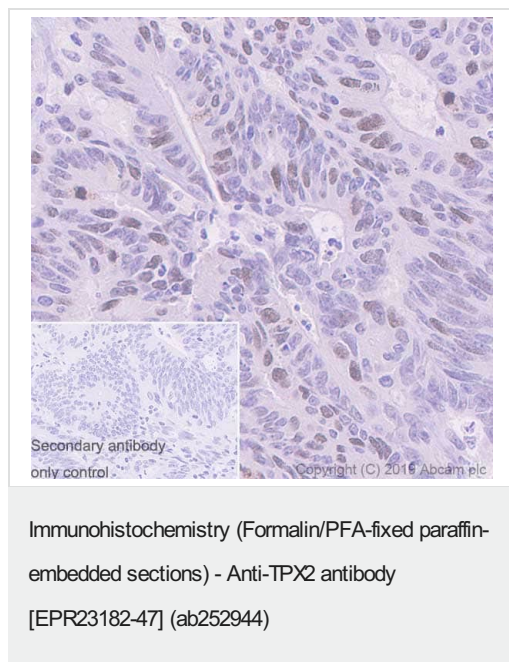


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody
[EPR23182-47] (ab252944)

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling TPX2 with ab252944 at 1/1000 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in proliferative cells of human lung cancer (PMID:23634259, 16489064). Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).






Immunohistochemical analysis of paraffin-embedded human colon cancer tissue labeling TPX2 with ab252944 at 1/1000 followed by a ready to use Goat Anti-Rabbit IgG H&L (HRP). Positive staining in proliferative cells of human colon cancer (PMID:23634259, 22207630). Counterstained with hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use Goat Anti-Rabbit IgG H&L (HRP).

Heat mediated antigen retrieval using **ab93684** (Tris/EDTA buffer, pH 9.0).

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-TPX2 antibody [EPR23182-47] (ab252944)

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