abcam

Product datasheet

Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free ab270613

Recombinant RabMAb

8 Images

Overview

Product name	Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free
Description	Rabbit monoclonal [EPR23182-47] to TPX2 - BSA and Azide free
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), ICC/IF, IHC-P, WB **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	ab270613 is the carrier-free version of **ab252944**. Our **carrier-free** antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. The carrier-free buffer and high concentration allow for increased conjugation efficiency. 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. 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. 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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit

monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C. Do Not Freeze.
Storage buffer	pH: 7.2 Constituent: PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR23182-47
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab270613 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)		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		Use at an assay dependent concentration. Predicted molecular weight: 86 kDa.

Application notes Is unsuitable for IP.

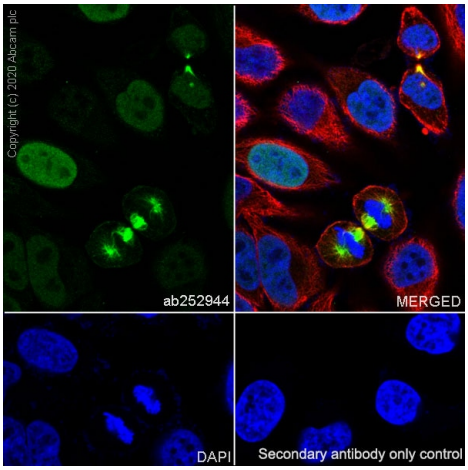
Target

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	Phosphorylated upon DNA damage, probably by ATM or ATR.

modifications

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

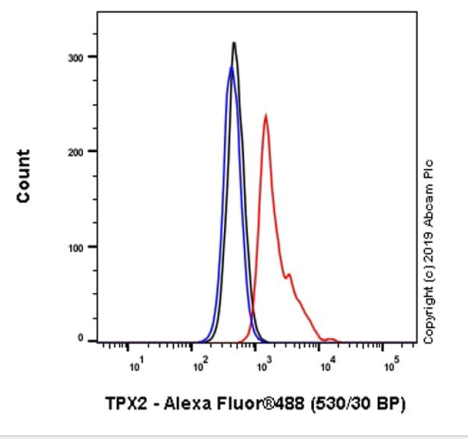


Immunocytochemistry/ Immunofluorescence - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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.

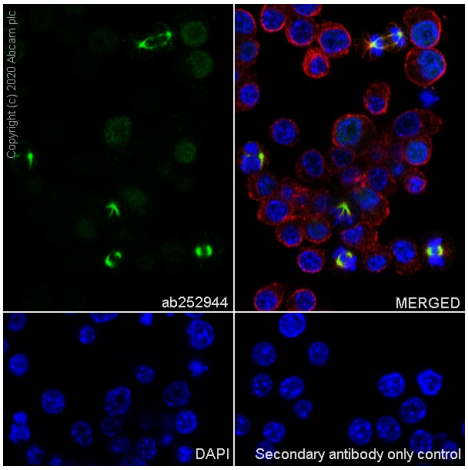
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



Flow Cytometry (Intracellular) - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



Immunocytochemistry/ Immunofluorescence - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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.

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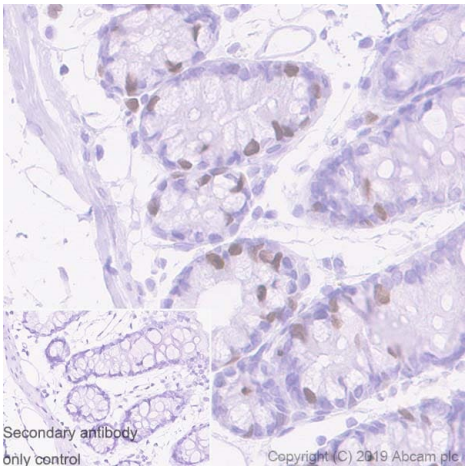


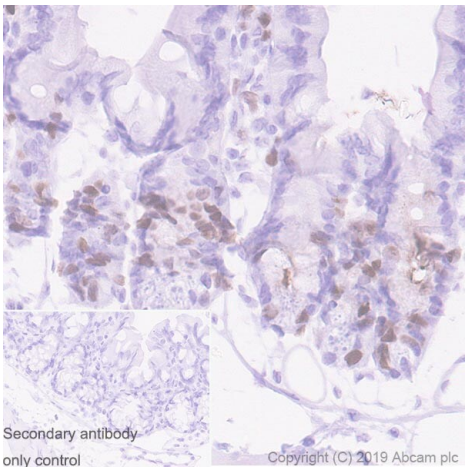
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



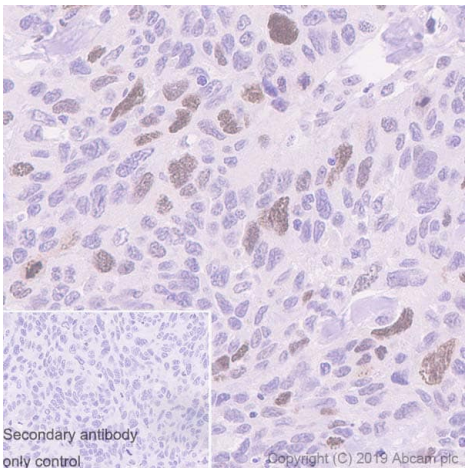
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



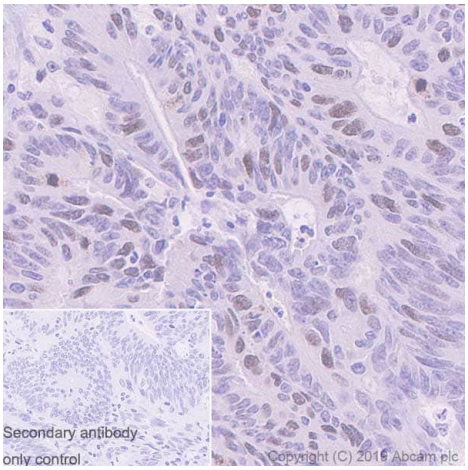
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



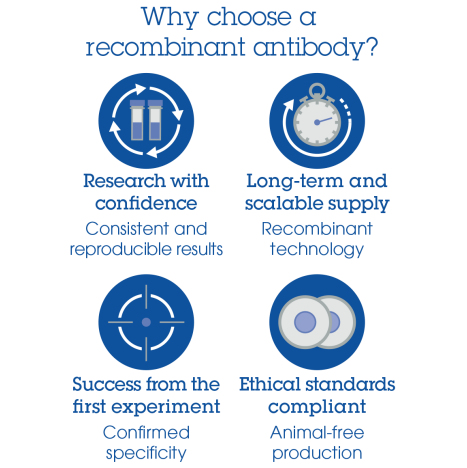
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TPX2 antibody [EPR23182-47] - BSA and Azide free (ab270613)

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).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (**ab252944**).



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