# Anti-TXNIP antibody [EPR14774] - Chimeric ab210826

## Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-TXNIP antibody [EPR14774] - Chimeric</th>
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</thead>
<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Mouse monoclonal [EPR14774] to TXNIP - Chimeric</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Mouse</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: ICC/IF, WB, Flow Cyt, IHC-P</td>
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<tr>
<td><strong>Species reactivity</strong></td>
<td>Reacts with: Mouse, Rat, Human</td>
</tr>
<tr>
<td><strong>Immunogen</strong></td>
<td>Synthetic peptide. This information is considered to be commercially sensitive.</td>
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<tr>
<td><strong>Positive control</strong></td>
<td>WB: HeLa whole cell lysate. ICC-IF: Hela, NIH-3T3 IHC-P: FFPE Human Kidney Normal, Mouse Kidney Normal</td>
</tr>
<tr>
<td><strong>General notes</strong></td>
<td>This mouse antibody has been engineered from a RabMAb parent antibody (ab188865). By necessity, some rabbit sequence is retained as part of the variable domain. When multiplexing with other rabbit-derived antibodies, using cross absorbed Fc-reactive secondary antibodies are recommended.</td>
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</tbody>
</table>

## Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>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.</td>
</tr>
<tr>
<td><strong>Storage buffer</strong></td>
<td>pH: 7.40</td>
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<tr>
<td></td>
<td>Preservative: 0.02% Sodium azide</td>
</tr>
<tr>
<td></td>
<td>Constituents: PBS, 6.97% L-Arginine</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Protein A purified</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Monoclonal</td>
</tr>
<tr>
<td><strong>Clone number</strong></td>
<td>EPR14774</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG2b</td>
</tr>
<tr>
<td><strong>Light chain type</strong></td>
<td>kappa</td>
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</table>

## Applications
Our Abpromise guarantee covers the use of ab210826 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

<table>
<thead>
<tr>
<th>Application</th>
<th>Abviews</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 - 5 µg/ml.</td>
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<tr>
<td>WB</td>
<td></td>
<td>Use a concentration of 5 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 44 kDa).</td>
</tr>
<tr>
<td>Flow Cyt</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
</tr>
<tr>
<td>IHC-P</td>
<td></td>
<td>Use a concentration of 1 - 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.</td>
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</table>

**Target**

**Function**
May act as an oxidative stress mediator by inhibiting thioredoxin activity or by limiting its bioavailability. Interacts with COPSS and restores COPSS-induced suppression of CDKN1B stability, blocking the COPSS-mediated translocation of CDKN1B from the nucleus to the cytoplasm. Functions as a transcriptional repressor, possibly by acting as a bridge molecule between transcription factors and corepressor complexes, and over-expression will induce G0/G1 cell cycle arrest. Required for the maturation of natural killer cells.

**Sequence similarities**
Belongs to the arrestin family.

**Post-translational modifications**
Ubiquitinated; undergoes polyubiquitination catalyzed by ITCH resulting in proteasomal degradation.

**Cellular localization**
Cytoplasm.

**Images**

All lanes: Anti-TXNIP antibody [EPR14774] - Chimeric (ab210826) at 1/1000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: NIH/3T3 (Mouse embryonic fibroblast) whole cell lysates

Lane 3: PC-12 (Rat adrenal gland pheochromocytoma) whole cell lysates

Lysates/proteins at 15 µg per lane.

**Secondary**

All lanes: Rabbit Anti-Mouse IgG H&L (HRP) (ab6728) at 1/2000 dilution
**Predicted band size:** 44 kDa

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

**Exposure time:**
- Lane 1: 30 seconds
- Lane 2: 70 seconds
- Lane 3: 50 seconds

Ab210826 staining TXNIP in HeLa (Human cervix adenocarcinoma epithelial cell line) by Flow Cytometry. Cells were fixed with 4% paraformaldehyde and permeabilised with 90% methanol. The sample was incubated with primary antibody at 1:100 dilution (1µg/ml) (red). An Alexa Fluor® 488 Goat anti mouse IgG (ab150113) was used at 1:2000 dilution. Rabbit monoclonal IgG (ab172730) was used as isotype control (black). Cell without incubation with primary antibody and secondary antibody (blue).

Ab210826 staining TXNIP in 293T (human embryonic kidney epithelial cell line) cells by Immunocytochemistry/Immunofluorescence (ICC/IF). The cells were fixed with 100% Methanol. Samples were incubated with primary antibody at 10µg/ml (1:100 dilution). An Alexa Fluor® 488 Goat Anti-Mouse was used as the secondary antibody at 2µg/ml (ab150113). Ab179504, Anti-beta IV Tubulin was used as a counterstain at 2µg/ml and ab150080 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 594) was used as secondary antibody counterstain at 4µg/ml. For negative control 1, primary antibody was used at a 10µg/ml and ab150080 was used as secondary antibody at 4 µg/ml. For negative control 2, ab179504 was used as a primary antibody at 2µg/ml and ab150113 was used as a secondary antibody at 2 µg/ml. DAPI was used as a nuclear counterstain. Confocal image showing cytoplasmic staining in 293T cells.
IHC image of TxNIP staining in a section of formalin fixed, paraffin embedded human normal kidney 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 ab210826, 2µg/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.

*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre

ab210826 stained in NIH3T3 cells. The cells were fixed with 100% methanol (5min) at room temperature and incubated with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% triton for 1h at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab210826 at 5µg/ml overnight at +4°C. The secondary antibody was ab150177 used at 1 ug/ml for 1hour at room temperature (colored green). ab206369 (Rabbit monoclonal [EPR16774] to beta Tubulin Alexa Fluor® 594) was used as a counterstaining at a 1/200 dilution for 1hour at room temperature (pseudo-colored red). DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43µM for 1hour at room temperature.
Lane 1: Anti-TXNIP antibody [EPR14774] - Chimeric (ab210826) at 5 µg

Lane 2: Anti-TXNIP antibody [EPR14774] (ab188865) at 5 µg

All lanes: HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

Secondary

Lane 1: Goat polyclonal to Mouse IgG - H&L - Pre-Adsorbed (HRP) at 1/5000 dilution

Lane 2: Peroxidase AffiniPure Goat Anti-Rabbit IgG (H+L) at 1/50000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 44 kDa

Observed band size: 55 kDa

why is the actual band size different from the predicted?

Exposure time: 16 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% milk (LANE 1) and 2% Bovine Serum Albumin (lane 2) before being incubated with ab210826 (lane 1) and ab188865 (lane 2) overnight at 4°C. Antibody binding was detected using an anti-mouse (lane 1) and anti-rabbit (lane 2) antibody conjugated to HRP, and visualised using ECL development solution ab133406.
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-TXNIP antibody [EPR14774] - Chimeric (ab210826)

IHC image of ab210826 staining in a section of formalin fixed, paraffin embedded mouse normal kidney, using MOM detection kit, ab127055. The section was pre-treated using pressure cooker heat mediated antigen retrieval with sodium citrate buffer (pH6) for 30mins. The section was incubated with ab210826, 2µg/ml, for 15 mins at room temperature. DAB was used as the chromogen (ab103723), diluted 1/100 and incubated for 10min at room temperature. The section was 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.

Immunocytochemistry/Immunofluorescence - Anti-TXNIP antibody [EPR14774] - Chimeric (ab210826)

ab210826 stained in Hela cells. The cells were fixed with 100% methanol (5min) at room temperature and incubated with PBS containing 10% goat serum, 0.3 M glycine, 1% BSA and 0.1% triton for 1h at room temperature to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody ab210826 at 5µg/ml overnight at +4°C. The secondary antibody was ab150177 used at 1 ug/ml for 1hour at room temperature (colored green). ab206369 (Rabbit monoclonal [EPR16774] to beta Tubulin Alexa Fluor® 594) was used as a counterstaining at a 1/200 dilution for 1hour at room temperature (pseudo-colored red). DAPI was used to stain the cell nuclei (colored blue) at a concentration of 1.43µM for 1hour at room temperature.

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