

## Product datasheet

# Anti-TAOK2 (phospho S181) antibody ab32591

★ ★ ★ ★ ★ 1 Abreviews 1 References 1 Image

### Overview

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<b>Product name</b>	Anti-TAOK2 (phospho S181) antibody
<b>Description</b>	Rabbit polyclonal to TAOK2 (phospho S181)
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide corresponding to TAOK2. Phosphopeptide corresponding to amino acid residues surrounding the phospho-Ser181 of TAO2. Database link: <a href="#">Q9UL54</a>
<b>Positive control</b>	Rat hippocampal lysates
<b>General notes</b>	<p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications &amp; species that have been tested in our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.</p> <p>In preparation for this, we have started to update the applications &amp; species that this product is Abpromise guaranteed for.</p> <p>We are also updating the applications &amp; species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.</p> <p>Applications &amp; species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.</p> <p>Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, as well as customer reviews and Q&amp;As.</p>

### Properties

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<b>Form</b>	Liquid
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<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.50 Constituents: 0.238% HEPES, 50% Glycerol (glycerin, glycerine), 0.87% Sodium chloride, 0.01% BSA
<b>Purity</b>	Immunogen affinity purified
<b>Purification notes</b>	Affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

Our [Abpromise guarantee](#) covers the use of **ab32591** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

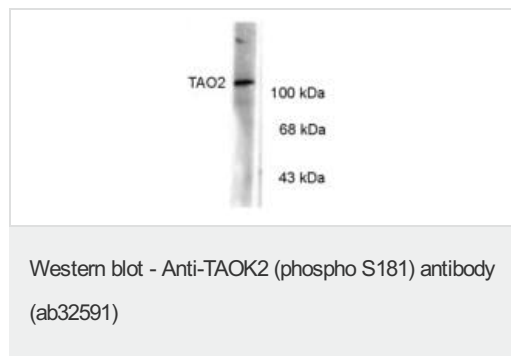
Application	Abreviews	Notes
WB	★★★★☆	1/1000. Detects a band of approximately 120 kDa (predicted molecular weight: 138 kDa).

## Target

<b>Function</b>	Isoform 1, but not isoform 2, plays a role in apoptotic morphological changes, including cell contraction, membrane blebbing and apoptotic bodies formation. This function, which requires the activation of MAPK8/JNK and nuclear localization of C-terminally truncated isoform 1, may be linked to the mitochondrial CASP9-associated death pathway. Isoform 1, but not isoform 2, activates the JNK MAP kinase pathway through the specific activation of the upstream MKK3 and MKK6 kinases. Isoform 1 binds to microtubules and affects their organization and stability independently of its kinase activity. Prevents MAP3K7-mediated activation of IKKA, and thus NF-kappa-B activation, but not that of JNK. Phosphorylates itself, MBP, activated MAPK8 and tubulins. May play a role in the osmotic stress-MAPK8 pathway. Isoform 2, but not isoform 1, is required for PCDH8 endocytosis. Following homophilic interactions between PCDH8 extracellular domains, isoform 2 phosphorylates and activates MAPK14/p38 MAPK which in turn phosphorylates isoform 2. This process leads to PCDH8 endocytosis and CDH2 cointernalization (By similarity). Both isoforms are involved in MAPK14 phosphorylation.
<b>Tissue specificity</b>	Ubiquitously expressed, with a higher level of expression in testis and brain.
<b>Sequence similarities</b>	Belongs to the protein kinase superfamily. STE Ser/Thr protein kinase family. STE20 subfamily. Contains 1 protein kinase domain.
<b>Post-translational modifications</b>	Isoforms 1 and 2 are autophosphorylated. C-terminal cleavage of isoform 1 and subsequent nuclear localization requires CASP9 activity. isoform 2 is phosphorylated at 'Ser-1031' by MAPK14. This phosphorylation is required PCDH8 for endocytosis.
<b>Cellular localization</b>	Cytoplasmic vesicle membrane. Cytoplasm > cytoskeleton. Nucleus. Catalytically active full-length phosphorylated isoform 1 localizes to microtubules in the cytoplasm predominantly on microtubule cables positioned around the nucleus. A C-terminally truncated form of isoform 1 is present in the nucleus; isoform 2 and kinase-defective, as well as full-length isoform 1 are excluded from the nucleus and Cell projection > dendrite. In dendrites, colocalizes with PCDH8.

## Images

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Anti-TAOK2 (phospho S181) antibody (ab32591) at 1/1000 dilution  
+ Rat hippocampal lysates

**Predicted band size:** 138 kDa

**Observed band size:** 120 kDa

[why is the actual band size different from the predicted?](#)

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
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