**Product datasheet**

**Anti-14-3-3 (phospho S58) antibody ab30554**

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**Overview**

**Product name**  Anti-14-3-3 (phospho S58) antibody  
**Description**  Rabbit polyclonal to 14-3-3 (phospho S58)  
**Host species**  Rabbit  
**Specificity**  Specific for the ~29k 14-3-3 protein phosphorylated at Ser58. Immunolabeling is blocked by the phosphopeptide used as antigen but not by the corresponding dephosphopeptide. 

The N-terminal sequence used as antigen has high homology across a wide variety of species for all of the 14-3-3 proteins. We have not specifically tested it for reactivity against each protein in any given species, we do expect it to recognize most all of them.

**Tested applications**  Suitable for: ICC/IF, WB, IHC-Fr  
**Species reactivity**  Reacts with: Mouse, Rat, Human, Zebrafish  
**Predicted to work with:**  Sheep, Chicken, Cow, Dog, Xenopus laevis, Non human primates

**Immunogen**  Phosphopeptide corresponding to amino acid residues surrounding the phosphorylation site Ser58 of rat 14-3-3 protein.

**Properties**

**Form**  Liquid  
**Storage instructions**  Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.  
**Storage buffer**  pH: 7.50  
Constituents: 0.238% HEPES, 50% Glycerol, 0.87% Sodium chloride, 0.01% BSA  
**Purity**  Immunogen affinity purified  
**Purification notes**  Prepared from rabbit serum by affinity purification via sequential chromatography on phospho- and dephosphopeptide affinity columns.  
**Clonality**  Polyclonal  
**Isotype**  IgG

**Applications**

Our Abpromise guarantee covers the use of ab30554 in the following tested applications.
**Function**

Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathways. Binds to a large number of partners, usually by recognition of a phosphoserine or phosphothreonine motif. Binding generally results in the modulation of the activity of the binding partner. Negative regulator of osteogenesis. Blocks the nuclear translocation of the phosphorylated form (by AKT1) of SRPK2 and antagonizes its stimulatory effect on cyclin D1 expression resulting in blockage of neuronal apoptosis elicited by SRPK2.

**Sequence similarities**

Belongs to the 14-3-3 family.

**Post-translational modifications**

The alpha, brain-specific form differs from the beta form in being phosphorylated (By similarity). Phosphorylated on Ser-60 by protein kinase C delta type catalytic subunit in a sphingosine-dependent fashion. Isoform Short contains a N-acetylmethionine at position 1.

**Cellular localization**

Cytoplasm. Melanosome. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

### Images

**All lanes**: Anti-14-3-3 (phospho S58) antibody (ab30554) at 1/1000 dilution

**Lane 1**: Rat brain stem lysate

**Lane 2**: Rat brain stem lysate with the phosphopeptide used as the antigen

**Observed band size**: 29 kDa

_why is the actual band size different from the predicted?_

### Application

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ICC/IF</td>
<td></td>
<td>Use at an assay dependent concentration. PubMed: 21118956</td>
</tr>
<tr>
<td>WB</td>
<td></td>
<td>1/1000. Detects a band of approximately 29 kDa.</td>
</tr>
<tr>
<td>IHC-Fr</td>
<td>★★★★★</td>
<td>1/500.</td>
</tr>
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</table>

### Notes

- The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.
- ICC/IF: Use at an assay dependent concentration. PubMed: 21118956

### Western blot - Anti-14-3-3 (phospho S58) antibody (ab30554)

- Western blot - Anti-14-3-3 (phospho S58) antibody (ab30554)
ab30554 staining 14-3-3 (phospho S58) in Mouse hippocampal tissue by Immunohistochemistry (Frozen sections). ab30554 is green, red staining is GFAP and nuclei are stained blue with DAPI.

ab30554 staining 14-3-3 (phospho S58) in human U2OS cells by Immunocytochemistry/Immunofluorescence.

U2OS cells were plated on coverslips and fixed by sequential incubations with 4% formaldehyde in PBS without calcium and magnesium [PBS(-)], 0.1% Triton X-100 in PBS(-) and 0.05% Tween-20 in PBS(-), each for 10 minutes at room temperature. After being washed, cells were incubated with ab30554, followed by incubation with Alexa Fluor 488–conjugated anti-rabbit IgG in TBST (100 mM Tris-HCl pH 7.5, 150 mM NaCl, 0.05% Tween-20) containing 5% FBS.
All lanes: Anti-14-3-3 (phospho S58) antibody (ab30554) at 1 µg/ml

Lane 1: Marker
Lane 2: Zebrafish brain homogenate (20ug)
Lane 3: Mouse brain homogenate (20ug)

Secondary
All lanes: Goat polyclonal to Rabbit IgG – H&L – Pre-Adsorbed (HRP) at 1/6000 dilution

Developed using the ECL technique.
Perform under reducing conditions.

Observed band size: 28 kDa why is the actual band size different from the predicted?

Exposure time: 1 minute

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