Product datasheet

Anti-14-3-3 zeta antibody ab51129

Overview

Product name  Anti-14-3-3 zeta antibody
Description  Rabbit polyclonal to 14-3-3 zeta
Host species  Rabbit
Specificity  ab51129 detects endogenous levels of total 14-3-3 zeta protein.
Tested applications  Suitable for: ELISA, WB, ICC, ICC/IF, IHC-P
Species reactivity  Reacts with: Mouse, Rat, Human
Immunogen  Synthesized non-phosphopeptide derived from human 14-3-3 zeta around the phosphorylation site of serine 58 (R-S-S\(^P\)-W-R).
Positive control  Human breast carcinoma tissue or extracts from 293 cells treated with Forskolin.

Properties

Form  Liquid
Storage instructions  Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer  pH: 7.40
Preservative: 0.02% Sodium azide
Constituents: 50% Glycerol, 0.87% Sodium chloride, PBS
Without Mg\(^2\)+ and Ca\(^2\)+
Purity  Immunogen affinity purified
Clonality  Polyclonal
Isotype  IgG

Applications

Our Abpromise guarantee covers the use of ab51129 in the following tested applications.
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

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<th>Abreviews</th>
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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.

Sequence similarities
Belongs to the 14-3-3 family.

Post-translational modifications
The delta, brain-specific form differs from the zeta form in being phosphorylated (By similarity). Phosphorylation on Ser-184 by MAPK8; promotes dissociation of BAX and translocation of BAX to mitochondria. Phosphorylation on Ser-58 by PKA; disrupts homodimerization and heterodimerization with YHAE and TP53. This phosphorylation appears to be activated by sphingosine. Phosphorylation on Thr-232; inhibits binding of RAF1.

Cellular localization
Cytoplasm. Melanosome. Located to stage I to stage IV melanosomes.

Images

<table>
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<tbody>
<tr>
<td>ELISA</td>
<td></td>
<td>1/40000.</td>
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<tr>
<td>WB</td>
<td>★★★☆☆☆</td>
<td>1/500 - 1/1000. Detects a band of approximately 28 kDa (predicted molecular weight: 28 kDa).</td>
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<tr>
<td>ICC</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
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<tr>
<td>ICC/IF</td>
<td></td>
<td>Use a concentration of 1 µg/ml.</td>
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<tr>
<td>IHC-P</td>
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<td>1/50 - 1/100.</td>
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All lanes: Anti-14-3-3 zeta antibody (ab51129)

Lane 1: Extracts from 293 cells treated with Forskolin (40nM, 30min) with no peptide

Lane 2: Extracts from 293 cells treated with Forskolin (40nM, 30min) with immunising peptide

Predicted band size: 28 kDa
 Observed band size: 28 kDa
ab51129 staining 14-3-3 zeta in Human glioblastoma samples (A) and low grade tumors (B) by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Antigen retrieval was by heat mediation in a citrate buffer. Samples were incubated with primary antibody (1/50) overnight. Nuclei stained blue with hematoxylin. Scale bars = 20 µm.

This image shows paraffin-embedded human breast carcinoma tissue stained with ab51129 at a dilution of 1/100. Right hand image: tissue treated with immunising peptide; left hand image: untreated tissue.
IMMUNOCYTOCHEMISTRY/ IMMUNOFUORESCENCE - Anti-14-3-3 zeta antibody (ab51129)

ICC/IF image of ab51129 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab51129, 1µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

Please note: All products are “FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES”

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