abcam

Product datasheet

Anti-14-3-3 zeta (phospho S58) antibody ab51109

2 Abreviews 4 References 3 Images

Overview

Product name	Anti-14-3-3 zeta (phospho S58) antibody
Description	Rabbit polyclonal to 14-3-3 zeta (phospho S58)
Host species	Rabbit
Specificity	14-3-3 zeta (phospho S58) antibody detects endogenous levels of 14-3-3 zeta only when phosphorylated at serine 58. The immunogen sequence shows 92% homology with 14-3-3 gamma, eta, and beta/alpha. There may be cross reactivity with these other proteins.
Tested applications	**Suitable for:** ICC/IF, WB, IHC-P
Species reactivity	**Reacts with:** Mouse, Human
Immunogen	Synthetic peptide corresponding to Human 14-3-3 zeta aa 1-100 (phospho S58). Database link: **P63104**
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. 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, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.40 Preservative: 0.02% Sodium azide Constituents: 50% Glycerol, 0.87% Sodium chloride, PBS Without Mg+2 and Ca+2
Purity	Immunogen affinity purified
Purification notes	The antibody was affinity-purified from rabbit antiserum by affinity chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site.

Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51109 in the following tested applications.

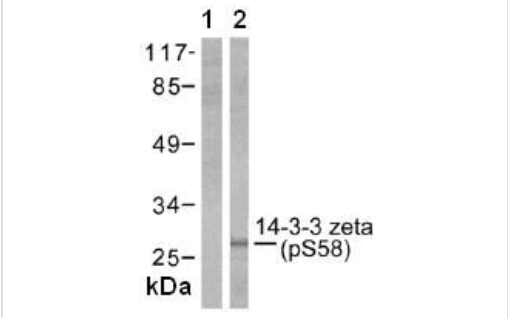
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC/IF		Use a concentration of 1 - 5 µg/ml.
WB	★★★☆☆ (2)	1/500 - 1/1000. Detects a band of approximately 28 kDa (predicted molecular weight: 28 kDa).
IHC-P		Use at an assay dependent concentration.

Target

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

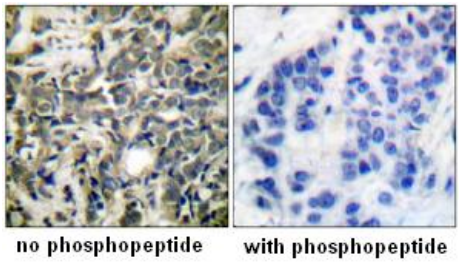


Western blot - Anti-14-3-3 zeta (phospho S58) antibody (ab51109)

All lanes : Anti-14-3-3 zeta (phospho S58) antibody (ab51109) at 1/500 dilution

Lane 1 : NIH/3T3 cell extract (treated with UV for 30 mins) with phosphopeptide immunogen (phospho S58)
Lane 2 : NIH/3T3 cell extract (treated with UV for 30 mins)

Predicted band size: 28 kDa
Observed band size: 28 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-14-3-3 zeta (phospho S58) antibody (ab51109)

Ab51109 staining human 14-3-3 zeta in human breast carcinoma tissue in immunohistochemistry using paraffin embedded tissue.

Immunocytochemistry/ Immunofluorescence - Anti-14-3-3 zeta (phospho S58) antibody (ab51109)

ICC/IF image of ab51109 stained HeLa cells. The cells were 100% methanol fixed (5 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 (ab51109, 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.

Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors