

## 14-3-3 $\zeta$ (Phospho Ser58) Rabbit pAb

CatalogNo: YP0853 **Orthogonal Validated** 

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, IHC, IF, ELISA

#### MW

- 30kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-1:2000**

**IHC 1:100-1:300**

**IF 1:200-1:1000**

**ELISA 1:40000**

**Not yet tested in other applications.**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human 14-3-3 zeta around the phosphorylation site of Ser58. AA range:24-73

**Specificity**

Phospho-14-3-3 ζ (S58) Polyclonal Antibody detects endogenous levels of 14-3-3 ζ protein only when phosphorylated at S58. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):RSsWR

**| Target Information**

**Gene name** YWHAZ

**Protein Name** 14-3-3 protein zeta/delta

| Organism | Gene ID                 | UniProt ID               |
|----------|-------------------------|--------------------------|
| Human    | <a href="#">7534</a> ;  | <a href="#">P63104</a> ; |
| Mouse    | <a href="#">22631</a> ; | <a href="#">P63101</a> ; |
| Rat      | <a href="#">25578</a> ; | <a href="#">P63102</a> ; |

**Cellular Localization**

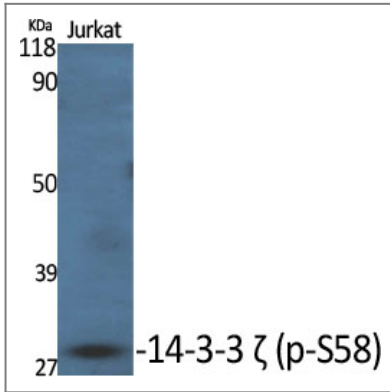
Cytoplasm . Melanosome . Located to stage I to stage IV melanosomes.

**Tissue specificity** B-cell lymphoma ,Bone marrow

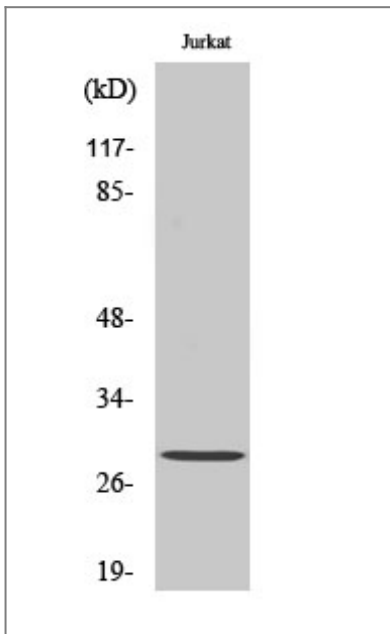
**Function**

Caution:Was originally (PubMed:1577711) thought to have phospholipase A2 activity.  
 ,Function:Adapter protein implicated in the regulation of a large spectrum of both general and specialized signaling pathway. 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. ,PTM: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. ,similarity:Belongs to the 14-3-3 family. ,subcellular location:Located to stage I to stage IV melanosomes.  
 ,subunit:Homodimer. Heterodimerizes with YWHAE. Homo- and hetero-dimerization is inhibited by phosphorylation on Ser-58. Interacts with FOXO4 , NOXA1 , SSH1 and ARHGEF2. Interacts with PCTK1 and BSPRY (By similarity) . Interacts with WEE1 (C-terminal) (By similarity) . Interacts with MLF1 (phosphorylated form) ; the interaction retains it in the cytoplasm (By similarity) . Interacts with Thr-phosphorylated ITGB2 (By similarity) . Interacts with Pseudomonas aeruginosa exoS (unphosphorylated form) . Interacts with BAX; the interaction occurs in the cytoplasm. Under stress conditions , MAPK8-mediated phosphorylation releases BAX to mitochondria. Interacts with phosphorylated RAF1; the interaction is inhibited when YWHAZ is phosphorylated on Thr-232. Interacts with TP53; the interaction enhances p53 transcriptional activity. The Ser-58 phosphorylated form inhibits this interaction and p53 transcriptional activity. Interacts with ABL1 (phosphorylated form) ; the interaction retains ABL1 in the cytoplasm. Interacts with AANAT ('Thr-31' phosphorylated form) ; the interaction modulates AANAT enzymatic activity through preventing dephosphorylation and/or proteolysis and stabilizing substrate binding. Subsequently , a second molecule of AANAT ('Ser-205' phosphorylated form) , can bind the other YWHAZ monomer with similar effect. Interacts with AKT1; the interaction phosphorylates YWHAZ and modulates dimerization. ,

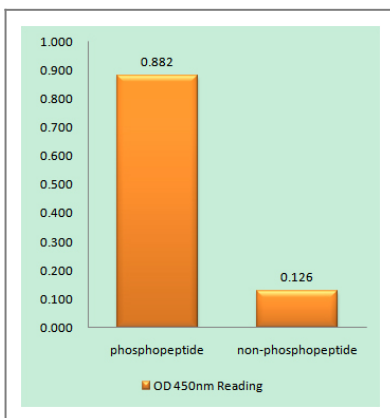
## Validation Data



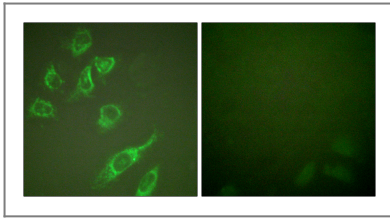
Western Blot analysis of various cells using Phospho-14-3-3 ζ (S58) Polyclonal Antibody diluted at 1:2000



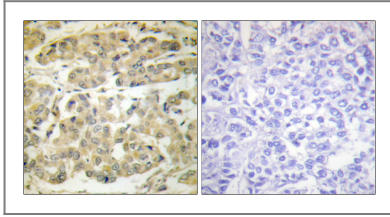
Western Blot analysis of Jurkat cells using Phospho-14-3-3 ζ (S58) Polyclonal Antibody diluted at 1:2000



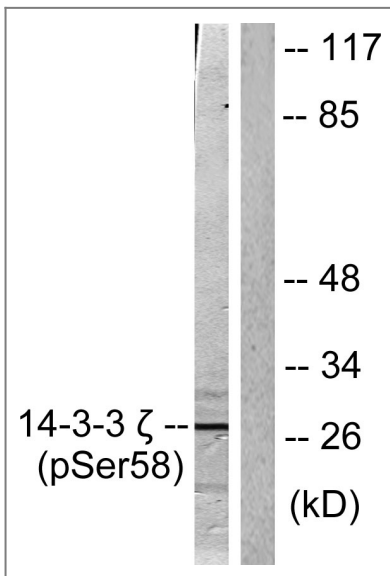
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using 14-3-3 zeta (Phospho-Ser58) Antibody



Immunofluorescence analysis of HeLa cells treated with PMA 125ng/ml 30', using 14-3-3 zeta (Phospho-Ser58) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using 14-3-3 zeta (Phospho-Ser58) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from NIH/3T3 cells treated with UV 30', using 14-3-3 zeta (Phospho-Ser58) Antibody. The lane on the right is blocked with the phospho peptide.

## Contact information

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Please scan the QR code to access additional product information:

**14-3-3 ζ (Phospho Ser58) Rabbit pAb**

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