SunLong Biotech Co.,LTD
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[Marker Primary Antibody]

Rabbit Anti-phospho-14-3-3 protein zeta (Ser58)/FITC Conjugated antibody

Catalog Number: SL3000R-FITC

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Anti-phospho-14-3-3 protein zeta (Ser58)/FITC
Immunogen:	KLH conjugated Synthesised phosphopeptide derived from human 14-3-3 protein zeta/delta around the phosphorylation site of Ser58
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
Applications:	Flow-Cyt=1μg /test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human(predicted:Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit)
Background:	background: Members of the 14-3-3 family of proteins are highly conserved proteins, localized in neurons, and are axonally transported to the nerve terminals. They are also present, at lower levels, in various other eukaryotic tissues. 14-3-3 proteins appear to play important roles in a variety of signal transduction pathways, including those involved in cell cycle regulation and cell survival. Because 14-3-3 proteins bind to specific phosphoserine-containing sequences they are likely to have an important role in signaling pathways mediated by serine/threonine protein kinases. Evidence indicates 14-3-3 is required for Raf 1 kinase activity and phosphorylation amoung many other functions. **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

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	partner. **Subunit:** Interacts with CDK16 and BSPRY. Interacts with WEE1 (C-terminal). Interacts with SAMSN1. Interacts with MLF1 (phosphorylated form); the interaction retains it in the cytoplasm. Interacts with Thr-phosphorylated ITGB2. Interacts with BCL2L11. Homodimer. Heterodimerizes with YWHAE. Homo- and hetero-dimerization is inhibited by phosphorylation on Ser-58. Interacts with FOXO4, NOXA1, SSH1 and ARHGEF2. 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 PKA-phosphorylated AANAT; the interaction modulates AANAT enzymatic activity by increasing affinity for arylalkylamines and acetyl-CoA and protecting the enzyme from dephosphorylation and proteasomal degradation. It may also prevent thiol-dependent inactivation. Interacts with AKT1; the interaction phosphorylates YWHAZ and modulates dimerization. Interacts with GAB2 and TLK2. **Subcellular Location:** Cytoplasm. Melanosome. Note=Located to stage I to stage IV melanosomes. **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. **Similarity:** Belongs to the 14-3-3 family. **Database links:** **Entrez Gene:** 7534 Human **Entrez Gene:** 22631 Mouse **Entrez Gene:** 25578 Rat Omim: 601288 Human **SwissProt:** P63104 Human

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	SwissProt: P63101 Mouse **SwissProt:** P63102 Rat **Unigene:** 492407 Human **Unigene:** 3360 Mouse **Unigene:** 465895 Mouse **Unigene:** 1292 Rat Important **Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. Signaling Intermediates 14-3-3 protein is a family of proteins involved in the regulation of Apoptosis, mitogenic signal transduction and cell cycle checkpoints. It is thought to be a key regulator in signal transduction mediated by binding to proteins phosphorylated on serine residues. Through binding to Bad (Bcl-2-associated death promoter), 14-3-3 protein prevents Apoptosis by sequestering Bad in the cytosol. 14-3-3 ζ protein is a member of the 14-3-3 family. It is a highly conserved multifunctional protein widely distributed in mammals, amphibians, Insects, Botany, and yeast eukaryotes. At least 16 members are currently known. This antibody recognizes the 14-3-3ζ protein isoform with a molecular weight of 30-31 kDa.