Product Name: 14-3-3 ζ/δ Rabbit Polyclonal Antibody
Catalog #: APRab06283

Summary

Production Name	14-3-3 ζ/δ Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	IF,IHC,WB,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	YWHAZ
Alternative Names	YWHAZ; 14-3-3 protein zeta/delta; Protein kinase C inhibitor protein 1; KCIP-1
Gene ID	7534.0
SwissProt ID	P63104.The antiserum was produced against synthesized peptide derived from human 14-3-3 zeta/delta. AA range:196-245

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Molecular Weight	28kD

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Background

This gene product belongs to the 14-3-3 family of proteins which mediate signal transduction by binding to phosphoserine-containing proteins. This highly conserved protein family is found in both plants and mammals, and this protein is 99% identical to the mouse, rat and sheep orthologs. The encoded protein interacts with IRS1 protein, suggesting a role in regulating insulin sensitivity. Several transcript variants that differ in the 5' UTR but that encode the same protein have been identified for this gene. [provided by RefSeq, Oct 2008],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 acivity. 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.,

Research Area

Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;Oocyte meiosis;Neurotrophin;Pathogenic Escherichia coli infection;

Image Data

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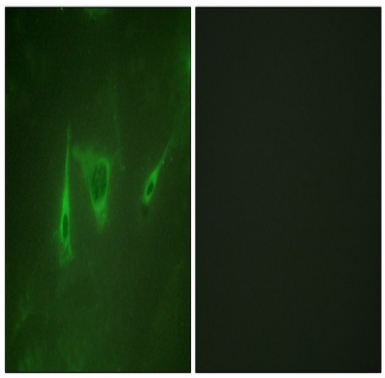
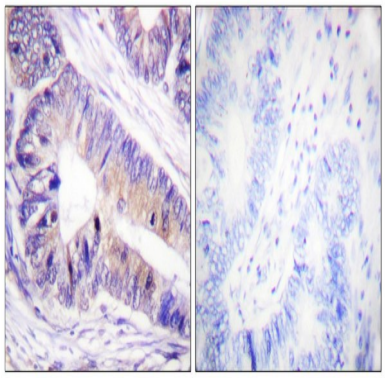
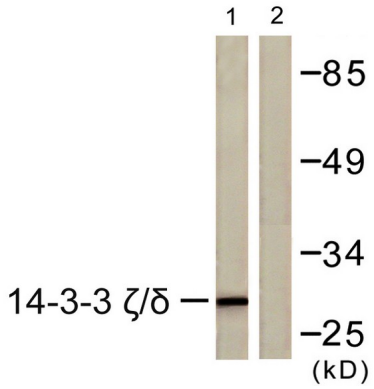


Immunofluorescence analysis of NIH/3T3 cells, using 14-3-3 zeta/delta Antibody. The picture on the right is blocked with the synthesized peptide.



Immunohistochemistry analysis of paraffin-embedded human colon carcinoma tissue, using 14-3-3 zeta/delta Antibody. The picture on the right is blocked with the synthesized peptide.



Western blot analysis of lysates from K562 cells, using 14-3-3 zeta/delta Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.