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Phospho-Raf1 (Ser296) Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP3922a

Specification

Phospho-Raf1 (Ser296) Antibody - Product Information

Application	**WB,E**
Primary Accession	P04049
Other Accession	Q99N57, Q5R5M7, P11345
Reactivity	**Human**
Predicted	**Mouse, Rat**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**73052**

Phospho-Raf1 (Ser296) Antibody - Additional Information

Gene ID 5894

Other Names
RAF proto-oncogene serine/threonine-protein kinase, 2.7.11.1, Proto-oncogene c-RAF, cRaf, Raf-1, RAF1, RAF

Target/Specificity
This Phospho-Raf1 (Ser296) antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 268-301 amino acids from the human region of human Phospho-Raf1 (Ser296).

Dilution
WB~~1:500
E~~Use at an assay dependent concentration.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Phospho-Raf1 (Ser296) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Phospho-Raf1 (Ser296) Antibody - Protein Information

Name RAF1 (HGNC:9829)

Synonyms RAF

Function Serine/threonine-protein kinase that acts as a regulatory link between the

membrane-associated Ras GTPases and the MAPK/ERK cascade, and this critical regulatory link functions as a switch determining cell fate decisions including proliferation, differentiation, apoptosis, survival and oncogenic transformation. RAF1 activation initiates a mitogen-activated protein kinase (MAPK) cascade that comprises a sequential phosphorylation of the dual-specific MAPK kinases (MAP2K1/MEK1 and MAP2K2/MEK2) and the extracellular signal- regulated kinases (MAPK3/ERK1 and MAPK1/ERK2). The phosphorylated form of RAF1 (on residues Ser-338 and Ser-339, by PAK1) phosphorylates BAD/Bcl2-antagonist of cell death at 'Ser-75'. Phosphorylates adenylyl cyclases: ADCY2, ADCY5 and ADCY6, resulting in their activation. Phosphorylates PPP1R12A resulting in inhibition of the phosphatase activity. Phosphorylates TNNT2/cardiac muscle troponin T. Can promote NF-kB activation and inhibit signal transducers involved in motility (ROCK2), apoptosis (MAP3K5/ASK1 and STK3/MST2), proliferation and angiogenesis (RB1). Can protect cells from apoptosis also by translocating to the mitochondria where it binds BCL2 and displaces BAD/Bcl2-antagonist of cell death. Regulates Rho signaling and migration, and is required for normal wound healing. Plays a role in the oncogenic transformation of epithelial cells via repression of the TJ protein, occludin (OCLN) by inducing the up-regulation of a transcriptional repressor SNAI2/SLUG, which induces down-regulation of OCLN. Restricts caspase activation in response to selected stimuli, notably Fas stimulation, pathogen-mediated macrophage apoptosis, and erythroid differentiation.

Cellular Location
Cytoplasm. Cell membrane. Mitochondrion. Nucleus. Note=Colocalizes with RGS14 and BRAF in both the cytoplasm and membranes. Phosphorylation at Ser-259 impairs its membrane accumulation. Recruited to the cell membrane by the active Ras protein Phosphorylation at Ser-338 and Ser-339 by PAK1 is required for its mitochondrial localization. Retinoic acid-induced Ser-621 phosphorylated form of RAF1 is predominantly localized at the nucleus

Tissue Location
In skeletal muscle, isoform 1 is more abundant than isoform 2.

Phospho-Raf1 (Ser296) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Phospho-Raf1 (Ser296) Antibody - Images

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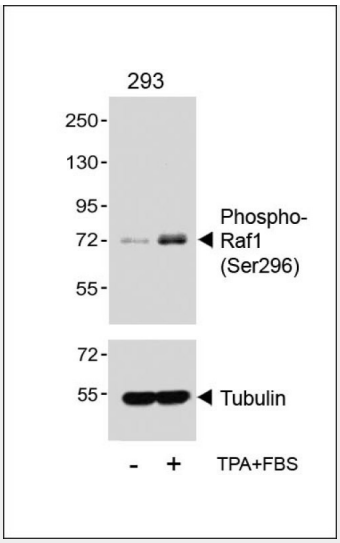

Western blot analysis of lysates from 293 cell line, untreated or treated with TPA(200nM)+10%FBS, using (Cat. #AP3922a)(upper) or Tubulin (lower).

Phospho-Raf1 (Ser296) Antibody - Background

Serine/threonine-protein kinase that acts as a regulatory link between the membrane-associated Ras GTPases and the MAPK/ERK cascade, and this critical regulatory link functions as a switch determining cell fate decisions including proliferation, differentiation, apoptosis, survival and oncogenic transformation. RAF1 activation initiates a mitogen-activated protein kinase (MAPK) cascade that comprises a sequential phosphorylation of the dual-specific MAPK kinases (MAP2K1/MEK1 and MAP2K2/MEK2) and the extracellular signal-regulated kinases (MAPK3/ERK1 and MAPK1/ERK2). The phosphorylated form of RAF1 (on residues Ser-338 and Ser-339, by PAK1) phosphorylates BAD/Bcl2- antagonist of cell death at 'Ser-75'. Phosphorylates adenylyl cyclases: ADCY2, ADCY5 and ADCY6, resulting in their activation. Phosphorylates PPP1R12A resulting in inhibition of the phosphatase activity. Phosphorylates TNNT2/cardiac muscle troponin T. Can promote NF-kB activation and inhibit signal transducers involved in motility (ROCK2), apoptosis (MAP3K5/ASK1 and STK3/MST2), proliferation and angiogenesis (RB1). Can protect cells from apoptosis also by translocating to the mitochondria where it binds BCL2 and displaces BAD/Bcl2-antagonist of cell death. Regulates Rho signaling and migration, and is required for normal wound healing. Plays a role in the oncogenic transformation of epithelial cells via repression of the TJ protein, occludin (OCLN) by inducing the up-regulation of a transcriptional repressor SNAI2/SLUG, which induces down-regulation of OCLN. Restricts caspase activation in response to selected stimuli, notably Fas stimulation, pathogen-mediated macrophage apoptosis, and erythroid differentiation.

Phospho-Raf1 (Ser296) Antibody - References

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Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.
Bonner T.I.,et al.Mol. Cell. Biol. 5:1400-1407(1985).
Andreu-Perez P.,et al.Sci. Signal. 4:RA58-RA58(2011).

Phospho-Raf1 (Ser296) Antibody - Citations

- Retracted: Dioscorea nipponica Makino Relieves Ovalbumin-Induced Asthma in Mice through Regulating RKIP-Mediated Raf-1/MEK/MAPK/ERK Signaling Pathway