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Mouse Raf1 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP14280a

Specification

Mouse Raf1 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession Q99N57

Mouse Raf1 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 110157

Other Names
RAF proto-oncogene serine/threonine-protein kinase, Proto-oncogene c-RAF, cRaf, Raf-1, Raf1, Craf

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

Mouse Raf1 Antibody (N-term) Blocking Peptide - Protein Information

Name Raf1

Synonyms Craf

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. 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 (By similarity). Regulates Rho signaling and migration, and is required for normal wound healing.

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 (By similarity). Retinoic acid- induced Ser-621 phosphorylated form of RAF1 is predominantly localized at the nucleus.

Tissue Location
Present in all tissues tested: testis, ovary, small intestine, colon, peripheral blood leukocytes, fetal liver, bone marrow, thymus, lymph node and spleen, and the cell lines melanoma G- 361, lung carcinoma A-549, colorectal adenocarcinoma SW480, Burkitt's lymphoma Raji and lymphoblastic leukemia MOLT-4. In skeletal muscle, isoform 1 is more abundant than isoform 2

Mouse Raf1 Antibody (N-term) Blocking Peptide - Protocols

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

- Blocking Peptides

Mouse Raf1 Antibody (N-term) Blocking Peptide - Images

Mouse Raf1 Antibody (N-term) Blocking Peptide - Background

Involved in the transduction of mitogenic signals from the cell membrane to the nucleus. Part of the Ras-dependent signaling pathway from receptors to the nucleus. Protects cells from apoptosis mediated by STK3 (By similarity).

Mouse Raf1 Antibody (N-term) Blocking Peptide - References

Niault, T.S., et al. Carcinogenesis 31(7):1165-1174(2010)Batarseh, A., et al. Biochemistry 49(23):4766-4778(2010)Tarutani, M., et al. J. Dermatol. Sci. 58(1):28-35(2010)Heidorn, S.J., et al. Cell 140(2):209-221(2010)Niault, T., et al. J. Cell Biol. 187(3):335-342(2009)