

Product datasheet

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ARG55908 anti-Raf1 antibody

Package: 100 μl Store at: -20°C

Summary

Product Description Rabbit Polyclonal antibody recognizes Raf1

Tested Reactivity Hu, Ms

Tested Application WB

Host Rabbit

Clonality Polyclonal

Isotype IgG

Target Name Raf1

Conjugation Un-conjugated

Alternate Names c-Raf; cRaf; Proto-oncogene c-RAF; CRAF; RAF proto-oncogene serine/threonine-protein kinase;

CMD1NN; Raf-1; EC 2.7.11.1; NS5

Application Instructions

Application table	Application	Dilution
	WB	1:1000

Application Note * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations

should be determined by the scientist.

Calculated Mw 73 kDa

Observed Size ~ 72 kDa

Properties

Form Liquid

Purification Affinity purification with immunogen.

Storage instruction For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot

and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links GenelD: 110157 Mouse

GeneID: 5894 Human

Swiss-port # P04049 Human

Swiss-port # Q99N57 Mouse

Gene Symbol RAF1

Gene Full Name Raf-1 proto-oncogene, serine/threonine kinase

Background

This gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinase kinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual specificity protein kinases MEK1 and MEK2, which in turn phosphorylate to activate the serine/threonine specific protein kinases, ERK1 and ERK2. Activated ERKs are pleiotropic effectors of cell physiology and play an important role in the control of gene expression involved in the cell division cycle, apoptosis, cell differentiation and cell migration. Mutations in this gene are associated with Noonan syndrome 5 and LEOPARD syndrome 2. [provided by RefSeq, Jul 2008]

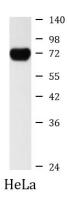
Function

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 upregulation 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. [UniProt]

Cellular Localization

Cytoplasm; Cell membrane; Mitochondrion; Nucleus

Images



ARG55908 anti-Raf1 antibody WB image

Western blot: HeLa cell lysate stained with ARG55908 anti-Raf1 antibody at 1:1000 dilution.