

KD-Validated Anti-Phospho-Raf1 (S621) Rabbit Monoclonal Antibody

Rabbit monoclonal antibody

Catalog # AGI1279

Product Information

Application	WB, FC, ICC
Primary Accession	P04049
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Clone Names	23GB2650
Calculated MW	73052
Gene Name	RAF1
Aliases	RAF1; Raf-1 Proto-Oncogene, Serine/Threonine Kinase; Raf-1; CRAF; RAF Proto-Oncogene Serine/Threonine-Protein Kinase; V-Raf-1 Murine Leukemia Viral Oncogene Homolog 1; C-Raf Proto-Oncogene, Serine/Threonine Kinase; Proto-Oncogene C-RAF; EC 2.7.11.1; C-Raf; V-Raf-1 Murine Leukemia Viral Oncogene-Like Protein 1; Raf Proto-Oncogene Serine/Threonine Protein Kinase; Oncogene RAF1; EC 2.7.11; CMD1NN; C-RAF; RAF-1; CRaf; NS5; RAF
Immunogen	A synthesized peptide derived from human Phospho-Raf1 (S621)

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 (HGNC:9829), RAF

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- κ B 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.

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