

Product Name: Raf-1 (phospho Ser642) Rabbit Polyclonal Antibody
Catalog #: APRab05340

Summary

Production Name	Raf-1 (phospho Ser642) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,ELISA,IHC-P
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phosphorylated
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% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	RAF1
Alternative Names	RAF1; RAF; RAF proto-oncogene serine/threonine-protein kinase; Proto-oncogene c-RAF; cRaf; Raf-1
Gene ID	5894.0
SwissProt ID	P04049. The antiserum was produced against synthesized peptide derived from human C-RAF around the phosphorylation site of Ser642. AA range:599-648

Application

Dilution Ratio	WB 1:500-2000, IHC-P 1:50-300, ELISA 2000-20000
Molecular Weight	75kDa

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Background

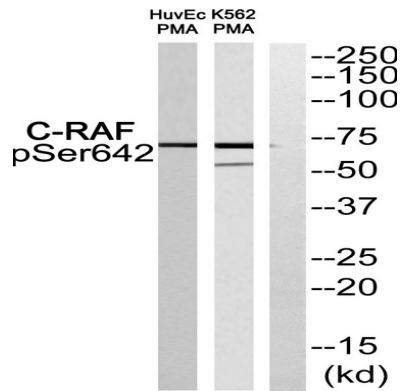
This gene is the cellular homolog of viral raf gene (v-raf). The encoded protein is a MAP kinase kinase kinase (MAP3K), which functions downstream of the Ras family of membrane associated GTPases to which it binds directly. Once activated, the cellular RAF1 protein can phosphorylate to activate the dual 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],catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Binds 2 zinc ions per subunit.,disease:Defects in RAF1 are the cause of LEOPARD syndrome type 2 (LEOPARD syndrome-2) [MIM:611554]. LEOPARD syndrome is an autosomal dominant disorder allelic with Noonan syndrome. The acronym LEOPARD stands for lentigines, electrocardiographic conduction abnormalities, ocular hypertelorism, pulmonic stenosis, abnormalities of genitalia, retardation of growth, and deafness.,disease:Defects in RAF1 are the cause of Noonan syndrome type 5 (NS5) [MIM:611553]. Noonan syndrome (NS) is a disorder characterized by dysmorphic facial features, short stature, hypertelorism, cardiac anomalies, deafness, motor delay, and a bleeding diathesis. It is a genetically heterogeneous and relatively common syndrome, with an estimated incidence of 1 in 1000-2500 live births.,function: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.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR. Phosphorylation at Thr-269 increases its kinase activity.,similarity:Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family. RAF subfamily.,similarity:Contains 1 phorbol-ester/DAG-type zinc finger.,similarity:Contains 1 protein kinase domain.,similarity:Contains 1 RBD (Ras-binding) domain.,subunit:Interacts with Ras proteins; the interaction is antagonized by RIN1. Weakly interacts with RIT1 (By similarity). Interacts with STK3; the interaction inhibits its pro-apoptotic activity. Interacts with YWHAZ (unphosphorylated at 'Thr-232').,tissue specificity:In skeletal muscle, isoform 1 is more abundant than isoform 2.,

Research Area

MAPK_ERK_Growth;MAPK_G_Protein;ErbB_HER;Chemokine;Vascular smooth muscle contraction;VEGF;Focal adhesion;Gap junction;Natural killer cell mediated cytotoxicity;T_Cell_Receptor;B_Cell_Antigen;Fc epsilon RI;Fc gamma R-mediated phagocytosis;Long-term potentiation;Neurotrophin;Long-term depression;Regulates Actin and Cytoskeleton;Insulin_Receptor;GnRH;Progesterone-mediated oocyte maturation;Melanogenesis;Pathways in cancer;Colorectal cancer;Renal cell carcinoma;Pancreatic cancer;Endometrial cancer;Glioma;Prostate cancer;Melanoma;Bladder cancer;Chronic myeloid leukemia;Acute myeloid leukemia;Non-small cell lung cancer;

Image Data

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Western blot analysis of C-RAF (Phospho-Ser642) Antibody. The lane on the right is blocked with the C-RAF (Phospho-Ser642) peptide.

Note

For research use only.