

## Raf-1 (phospho Ser642) Polyclonal Antibody

<b>Catalog No :</b>	YP0499
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;ELISA;IHC
<b>Target :</b>	Raf-1
<b>Fields :</b>	>>EGFR tyrosine kinase inhibitor resistance;>>Endocrine resistance;>>MAPK signaling pathway;>>ErbB signaling pathway;>>Ras signaling pathway;>>Rap1 signaling pathway;>>cGMP-PKG signaling pathway;>>cAMP signaling pathway;>>Chemokine signaling pathway;>>FoxO signaling pathway;>>Sphingolipid signaling pathway;>>Phospholipase D signaling pathway;>>Autophagy - animal;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>Apoptosis;>>Cellular senescence;>>Vascular smooth muscle contraction;>>Axon guidance;>>VEGF signaling pathway;>>Apelin signaling pathway;>>Focal adhesion;>>Gap junction;>>Signaling pathways regulating pluripotency of stem cells;>>Neutrophil extracellular trap formation;>>C-type lectin receptor signaling pathway;>>JAK-STAT signaling pathway;>>Natural killer cell mediated cytotoxicity;>>T cell receptor signaling pathway;>>B cell receptor signaling pathway;>>Fc epsilon RI signaling pathway;>>Fc gamma R-mediated phagocytosis;>>Long-term potentiation;>>Neurotrophin signaling pa
<b>Gene Name :</b>	RAF1
<b>Protein Name :</b>	RAF proto-oncogene serine/threonine-protein kinase
<b>Human Gene Id :</b>	5894
<b>Human Swiss Prot No :</b>	P04049
<b>Mouse Gene Id :</b>	110157
<b>Mouse Swiss Prot No :</b>	Q99N57
<b>Rat Gene Id :</b>	24703
<b>Rat Swiss Prot No :</b>	P11345

<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human C-RAF around the phosphorylation site of Ser642. AA range:599-648
<b>Specificity :</b>	Phospho-Raf-1 (S642) Polyclonal Antibody detects endogenous levels of Raf-1 protein only when phosphorylated at S642.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG
<b>Dilution :</b>	WB 1:500-2000;IHC 1:50-300; ELISA 2000-20000
<b>Purification :</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Concentration :</b>	1 mg/ml
<b>Storage Stability :</b>	-15°C to -25°C/1 year(Do not lower than -25°C)
<b>Observed Band :</b>	75kD
<b>Cell Pathway :</b>	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
<b>Background :</b>	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],
<b>Function :</b>	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 transducti

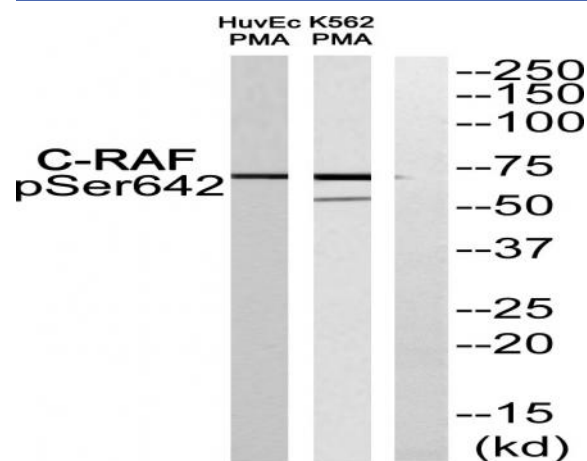
## Subcellular Location :

Cytoplasm. Cell membrane. Mitochondrion. Nucleus. 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.

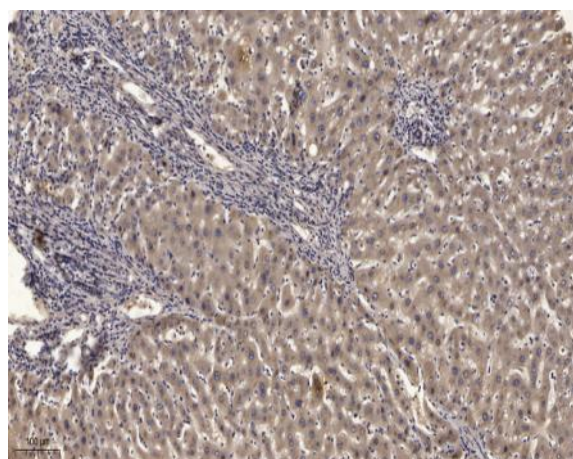
## Expression :

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

## Products Images



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



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).