



# Raf-1 (phospho Ser621) Polyclonal Antibody

<b>Catalog No</b>	YP-Ab-14516
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat;Monkey
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	RAF1
<b>Protein Name</b>	RAF proto-oncogene serine/threonine-protein kinase
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human C-RAF around the phosphorylation site of Ser621. AA range:591-640
<b>Specificity</b>	Phospho-Raf-1 (S621) Polyclonal Antibody detects endogenous levels of Raf-1 protein only when phosphorylated at S621.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/5000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	RAF1; RAF; RAF proto-oncogene serine/threonine-protein kinase; Proto-oncogene c-RAF; cRaf; Raf-1
<b>Observed Band</b>	73kD
<b>Cell Pathway</b>	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.
<b>Tissue Specificity</b>	In skeletal muscle, isoform 1 is more abundant than isoform 2.
<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

**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],

**matters needing attention**

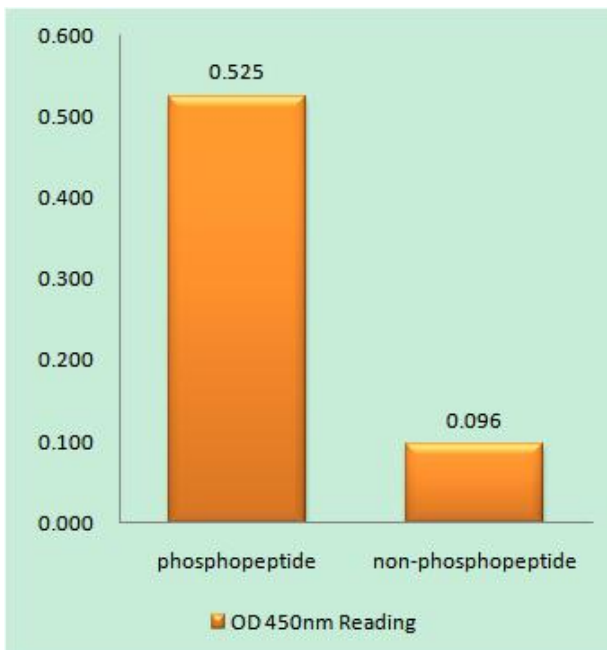
Avoid repeated freezing and thawing!

**Usage suggestions**

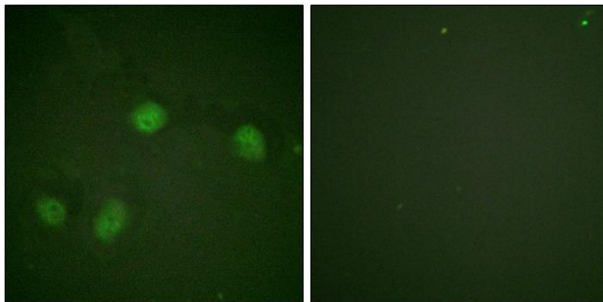
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



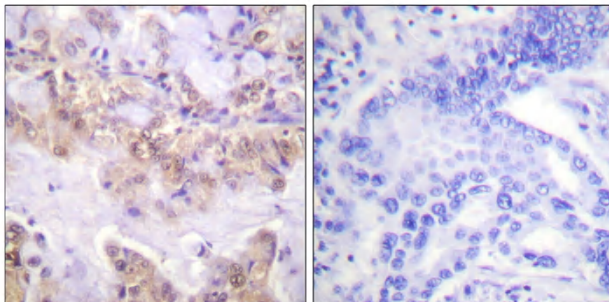
## Products Images



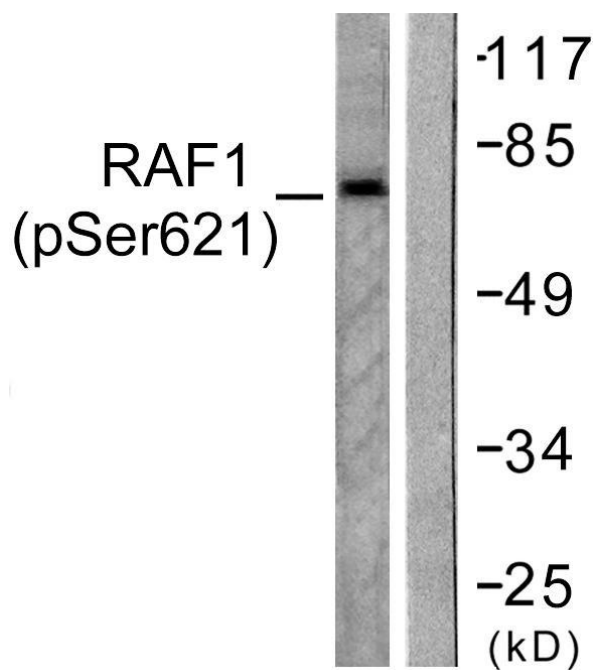
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using C-RAF (Phospho-Ser621) Antibody



Immunofluorescence analysis of HeLa cells, using C-RAF (Phospho-Ser621) Antibody. The picture on the right is blocked with the phospho peptide.



Immunohistochemistry analysis of paraffin-embedded human lung carcinoma, using C-RAF (Phospho-Ser621) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from HeLa cells treated with UV 5', using C-RAF (Phospho-Ser621) Antibody. The lane on the right is blocked with the phospho peptide.