

## Raf-1 (Phospho Ser642) Rabbit pAb

CatalogNo: YP0499

### Key Features

#### Host Species

- Rabbit

#### Reactivity

- Human, Mouse, Rat

#### Applications

- WB, ELISA, IHC

#### MW

- 75kD (Observed)

#### Isotype

- IgG

### Storage

**Storage\*** -15°C to -25°C/1 year (Do not lower than -25°C)

**Formulation** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

### Recommended Dilution Ratios

**WB 1:500-2000**

**IHC 1:50-300**

**ELISA 1:2000-20000**

### Basic Information

**Clonality** Polyclonal

### Immunogen Information

**Immunogen** The antiserum was produced against synthesized peptide derived from human C-RAF around the phosphorylation site of Ser642. AA range:599-648

**Specificity** Phospho-Raf-1 (S642) Polyclonal Antibody detects endogenous levels of Raf-1 protein only when phosphorylated at S642. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites): TTSPR

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## | Target Information

**Gene name** RAF1

**Protein Name** RAF proto-oncogene serine/threonine-protein kinase

Organism	Gene ID	UniProt ID
Human	<a href="#">5894;</a>	<a href="#">P04049;</a>
Mouse	<a href="#">110157;</a>	<a href="#">Q99N57;</a>
Rat	<a href="#">24703;</a>	<a href="#">P11345;</a>

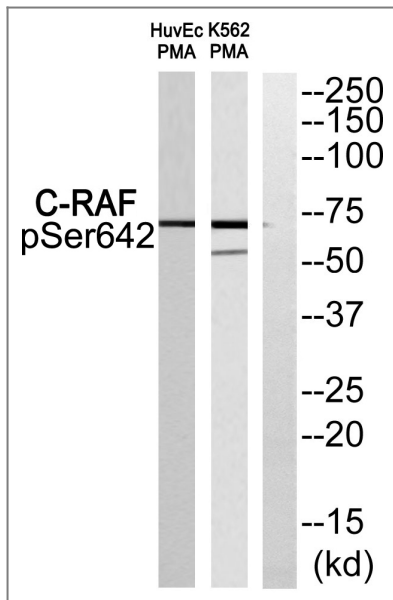
**Cellular Localization** Cytoplasm. Cell membrane. Mitochondrion. Nucleus. Colocalizes with RGS14 and BRAF in both the cytoplasm and membranes. Phosphorylation at Ser-259 impairs its membrane accumulation. Recruited to the cell membrane by the active Ras protein. Phosphorylation at Ser-338 and Ser-339 by PAK1 is required for its mitochondrial localization. Retinoic acid-induced Ser-621 phosphorylated form of RAF1 is predominantly localized at the nucleus.

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

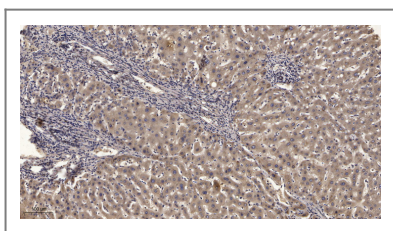
**Function** Catalytic activity:ATP + a protein = ADP + a phosphoprotein.,cofactor:Binds 2 zinc ions per subunit.,Disease:Defects in RAF1 are the cause of LEOPARD syndrome type 2 (LEOPARD syndrome-2) [MIM:611554]. LEOPARD syndrome is an autosomal dominant disorder allelic with Noonan syndrome. The acronym 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.,

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## | Validation Data



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°C overnight). 2, Tris-EDTA, pH9.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200 (room temperature, 45min).

## Contact information

Orders: [order@immunoway.com](mailto:order@immunoway.com)  
 Support: [tech@immunoway.com](mailto:tech@immunoway.com)  
 Telephone: 877-594-3616 (Toll Free), 408-747-0185  
 Website: <http://www.immunoway.com>  
 Address: 2200 Ringwood Ave San Jose, CA 95131 USA



Please scan the QR code to access additional product information:

**Raf-1 (Phospho Ser642) Rabbit pAb**

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