

Immunotag™ Raf-1 (phospho Ser301) Polyclonal Antibody

Antibody Specification	
Catalog No.	ITP0435
Product Description	Immunotag™ Raf-1 (phospho Ser301) Polyclonal Antibody
Size	50 µg, 100 µg
Conjugation	HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647
IMPORTANT NOTE	This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.
Target Protein	Raf-1 (Ser301)
Clonality	Polyclonal
Storage/Stability	-20°C/1 year
Application	WB,ELISA
Recommended Dilution	Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications.
Concentration	1 mg/ml
Reactive Species	Human,Mouse,Rat
Host Species	Rabbit
Immunogen	Synthesized phospho-peptide around the phosphorylation site of human Raf-1 (phospho Ser301)
Specificity	Phospho-Raf-1 (S301) Polyclonal Antibody detects endogenous levels of Raf-1 protein only when phosphorylated at S301.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen
Form	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Gene Name	RAF1
Accession No.	P04049 Q99N57 P11345
Alternate Names	RAF1; RAF; RAF proto-oncogene serine/threonine-protein kinase; Proto-oncogene c-RAF; cRaf; Raf-1

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Description	Raf-1 proto-oncogene, serine/threonine kinase(RAF1) Homo sapiens 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],
Cell Pathway/ Category	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,
Protein Expression	Epithelium,Pancreas,Placenta,
Subcellular Localization	intracellular,nucleus,cytoplasm,mitochondrial outer membrane,Golgi apparatus,cytosol,plasma membrane,pseudopodium,
Protein 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.,
Usage	For Research Use Only! Not for diagnostic or therapeutic procedures.