

Recombinant Human RAP1A, GST-tagged

Cat. No. RAP1A-118H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human RAP1A fused with a GST tag, was expressed in E. Coli.
Species	Human
Source	E.coli
Description	Rap1A is a 21 kDa small GTP-binding protein that antagonizes the Ras transforming activity through tight binding to Ras-GAP. It interferes with Ras-dependent Raf1 activation by inhibiting binding of Ras to the cysteine-rich region of Raf1. This protein is localized in the endoplasmic reticulum, late endosomes, and lysosomes, indicating its potential role in the regulation of intracellular protein degradation. Rap1a contains a C-terminal CLLL motif for post-translational geranylgeranylation and a single site for phosphorylation by protein kinase A. Ras proteins provide a crucial link in the intracellular signalling cascades. Ras proteins are members of the small G protein family. These proteins are characterized by a molecular weight between 20 and 30 kDa, the ability to bind GTP or GDP and a low intrinsic GTPase activity. These proteins relay signals from the plasma membrane activated by receptor tyrosine kinases to the nucleus via a network of serine/threonine kinases. Ras proteins belong to a family of approximately 40 mammalian and 60 non-mammalian proteins. Ras proteins were first discovered as the hyperactive products of mutant Ras genes which promote cancer by disrupting the normal controls on cell proliferation and differentiation; about 30% of human cancers have mutations in a Ras gene.
Form	Provided in 50mM Tris (pH 7.5) solution containing 150 mM NaCl, 10 mM MgCl ₂ , 1

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mM DTT, 10% glycerol

Applications

Affinity Binding; Rap1A protein is provided as a functional G-protein and can be used as a Western blot control for antibodies to Rap1A protein or in assays to study to protein-protein interactions of Rap1A and related proteins with regulatory proteins.

Storage

Product should be stored at -70°C. Aliquot to avoid freeze/thaw cycles

GENE INFORMATION

Gene Name

RAP1A RAP1A, member of RAS oncogene family [Homo sapiens]

Official Symbol

RAP1A

Synonyms

RAP1A; RAP1A, member of RAS oncogene family; ras-related protein Rap-1A; KREV 1; SMGP21; C21KG; G-22K; RAS-related protein RAP1A; Ras-related protein Krev-1; GTP-binding protein smg p21A; RAP1; KREV1; KREV-1;

Gene ID

5906

mRNA Refseq

NM_001010935

Protein Refseq

NP_001010935

MIM

179520

UniProt ID

P62834

Chromosome Location

1p13.3

Pathway

ARMS-mediated activation, organism-specific biosystem; Adaptive Immune System,

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organism-specific biosystem; Chemokine signaling pathway, organism-specific biosystem; Chemokine signaling pathway, conserved biosystem; Class I PI3K signaling events, organism-specific biosystem; EPO signaling pathway, organism-specific biosystem; Focal Adhesion, organism-specific biosystem;

Function

GTP binding; GTPase activity; Ras GTPase binding; nucleotide binding; protein binding;

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