

# Recombinant Human RASA1

Cat. No. RASA1-28975TH Lot. No. (See product label)

## SPECIFICATION

**Product Overview** Recombinant fragment of Human GAP with an N terminal proprietary tag; Predicted MWt 36.63 kDa.

**Species** Human

**Source** Wheat Germ

**ProteinLength** 100 amino acids

**Description** The protein encoded by this gene is located in the cytoplasm and is part of the GAP1 family of GTPase-activating proteins. The gene product stimulates the GTPase activity of normal RAS p21 but not its oncogenic counterpart. Acting as a suppressor of RAS function, the protein enhances the weak intrinsic GTPase activity of RAS proteins resulting in the inactive GDP-bound form of RAS, thereby allowing control of cellular proliferation and differentiation. Mutations leading to changes in the binding sites of either protein are associated with basal cell carcinomas. Alternative splicing results in two isoforms where the shorter isoform, lacking the N-terminal hydrophobic region but retaining the same activity, appears to be abundantly expressed in placental but not adult tissues.

**Molecular Weight** 36.630kDa inclusive of tags

**Tissue specificity** In placental villi, detected only in the trophoblast layer (cytotrophoblast and syncytiotrophoblast). Not detected in stromal, endothelial or Hofbauer cells (at protein level).

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<b>Form</b>	Liquid
<b>Purity</b>	Proprietary Purification
<b>Storage buffer</b>	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	AKEPYMEGVNPFIKSNKHRMIMFLDELGNVPELPDTTEHSRTDLSRDLAALHEICVA HSDELRTLSNERGAQQHV LKLLAITELLQQKQNQYTKTNDVR
<b>Sequence Similarities</b>	Contains 1 C2 domain. Contains 1 PH domain. Contains 1 Ras-GAP domain. Contains 2 SH2 domains. Contains 1 SH3 domain.

## GENE INFORMATION

<b>Gene Name</b>	RASA1 RAS p21 protein activator (GTPase activating protein) 1 [ Homo sapiens ]
<b>Official Symbol</b>	RASA1
<b>Synonyms</b>	RASA1; RAS p21 protein activator (GTPase activating protein) 1; RASA; ras GTPase-activating protein 1; capillary malformation arteriovenous malformation; CM AVM; GAP; p120GAP; p120RASGAP;
<b>Gene ID</b>	5921
<b>mRNA Refseq</b>	NM_002890
<b>Protein Refseq</b>	NP_002881

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<b>MIM</b>	139150
<b>Uniprot ID</b>	P20936
<b>Chromosome Location</b>	5q13
<b>Pathway</b>	Angiopoietin receptor Tie2-mediated signaling, organism-specific biosystem; Aurora A signaling, organism-specific biosystem; Aurora B signaling, organism-specific biosystem; Axon guidance, organism-specific biosystem; Axon guidance, conserved biosystem;
<b>Function</b>	GTPase binding; Ras GTPase activator activity; glycoprotein binding; potassium channel inhibitor activity; protein binding;

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