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

GENE INFORMATION

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

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MIM	139150
Uniprot ID	P20936
Chromosome Location	5q13
Pathway	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;
Function	GTPase binding; Ras GTPase activator activity; glycoprotein binding; potassium channel inhibitor activity; protein binding;

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