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Rabbit Anti-RASA1/AF350 Conjugated antibody

SL13280R-AF350

Product Name	Anti-RASA1/AF350
Chinese Name	AF350 标记的 Rho GTP 酶激活蛋白 1/血管畸形骨肥大综合征相关蛋白抗体
Alias	Ras GAP; CM AVM; CMAVM; DKFZp434N071; GAP; GTPase activating protein; GTPase-activating protein; OTTHUMP00000222390; OTTHUMP00000222391; OTTHUMP00000222392; OTTHUMP00000222393; p120GAP; p120RASGAP; PKWS; Ras GTPase-activating protein 1; GTPase-activating protein; RAS p21 protein activator (GTPase activating protein) 1; Ras p21 protein activator; RASA; RASA1; RASA1_HUMAN; RasGAP; Triphosphatase activating protein.
Research Area	Cell biology Signal transduction G protein-coupled receptor G protein signal
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Rat(predicted:Human,Mouse,Chicken,Dog,Pig,Cow,Horse,Sheep)
Applications	IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	116kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human Ras GTPase-activating protein 1
Lsotype	IgG
Purification	affinity purified by Protein A
Storage Buffer	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 1M PBS or diluent of antibody the antibody is stable for at least two weeks

at 2-4 °C.

Product Detail

background:
The mammalian c-H-, c-K- and N-Ras proto-oncogenes encode ubiquitously expressed proteins (1,2). p21Ras can exist in either a physiologically quiescent GDP-binding state or a GTP-binding signal-emitting state (3). Oncogenic p21Ras proteins are trapped in the excited signal-emitting state because the mechanism normally employed to delimit their excitation period, hydrolysis of their bound GTP to GDP, is impaired as a result of specific mutations (3). Interaction of p21Ras with GTPase activating protein (GAP) can increase hydrolysis of p21Ras-bound GTP by as much as 1000-fold (4,5). The product of the neurofibromatosis type 1 gene (NF1) has also been shown to exhibit p21Ras GAP activity (6,7), and proteins that stimulate the GTPase activity of three other low molecular weight GTPases, including Rho, Rab 3A and Rap 1, have also been described (8,9).

Function:
Inhibitory regulator of the Ras-cyclic AMP pathway. Stimulates the GTPase of normal but not oncogenic Ras p21.

Subunit:
Interacts with SQSTM1. Interacts with SPSB1; the interaction does not promote degradation. Interacts with CAV2 (tyrosine phosphorylated form). Directly interacts with NCK1. Interacts with PDGFRB (tyrosine phosphorylated). Interacts (via SH2 domain) with the 'Tyr-9' phosphorylated form of PDPK1.

Subcellular Location:
Cytoplasm.

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).

DISEASE:
Note=Mutations in the SH2 domain of RASA seem to be oncogenic and cause basal cell carcinomas.
Defects in RASA1 are the cause of capillary malformation-arteriovenous malformation (CMAVM) [MIM:608354]. CMAVM is a disorder characterized by atypical capillary malformations that are multiple, small, round to oval in shape and pinkish red in color. These capillary malformations are associated with either arteriovenous malformation, arteriovenous fistula, or Parkes Weber syndrome.
Defects in RASA1 are a cause of Parkes Weber syndrome (PKWS)

[MIM:608355]. PKWS is a disorder characterized by a cutaneous flush with underlying multiple micro-arteriovenous fistulas, in association with soft tissue and skeletal hypertrophy of the affected limb.

Similarity:
Contains 1 C2 domain.
Contains 1 PH domain.
Contains 1 Ras-GAP domain.
Contains 2 SH2 domains.
Contains 1 SH3 domain.

Database links:

Entrez Gene: 5921 Human

Entrez Gene: 218397 Mouse

Entrez Gene: 25676 Rat

Omim: 139150 Human

SwissProt: P20936 Human

SwissProt: P50904 Rat

Unigene: 664080 Human

Unigene: 12223 Rat

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.