

## **RASGRP1** Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP5856C

## Specification

# **RASGRP1** Antibody (Center) - Product Information

Application Primary Accession Other Accession

Reactivity Predicted Host Clonality Isotype Calculated MW Antigen Region WB, IHC-P, FC,E <u>O95267</u> <u>O9R1K8</u>, <u>O9Z1S3</u>, <u>NP\_005730.2</u>, <u>NP\_001122074.1</u> Human Mouse, Rat Rabbit Polyclonal Rabbit IgG 90402 495-521

## **RASGRP1** Antibody (Center) - Additional Information

Gene ID 10125

**Other Names** 

RAS guanyl-releasing protein 1, Calcium and DAG-regulated guanine nucleotide exchange factor II, CalDAG-GEFII, Ras guanyl-releasing protein, RASGRP1, RASGRP

#### Target/Specificity

This RASGRP1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 495-521 amino acids from the Central region of human RASGRP1.

**Dilution** WB~~1:1000 IHC-P~~1:10~50 FC~~1:10~50

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

#### Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

RASGRP1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

# **RASGRP1** Antibody (Center) - Protein Information



# Name RASGRP1

## Synonyms RASGRP

**Function** Functions as a calcium- and diacylglycerol (DAG)-regulated nucleotide exchange factor specifically activating Ras through the exchange of bound GDP for GTP (PubMed:<u>15899849</u>, PubMed:<u>23908768</u>, PubMed:<u>27776107</u>, PubMed:<u>29155103</u>). Activates the Erk/MAP kinase cascade (PubMed:<u>15899849</u>). Regulates T-cell/B-cell development, homeostasis and differentiation by coupling T-lymphocyte/B-lymphocyte antigen receptors to Ras (PubMed:<u>10807788</u>, PubMed:<u>12839994</u>, PubMed:<u>27776107</u>, PubMed:<u>29155103</u>). Regulates NK cell cytotoxicity and ITAM-dependent cytokine production by activation of Ras-mediated ERK and JNK pathways (PubMed:<u>19933860</u>). Functions in mast cell degranulation and cytokine secretion, regulating FcERI-evoked allergic responses. May also function in differentiation of other cell types (PubMed:<u>12845332</u>).

#### **Cellular Location**

Cytoplasm, cytosol. Cell membrane; Peripheral membrane protein. Golgi apparatus membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein Note=Found both in the cytosol and associated with membranes Relocalization to the cell membrane upon activation is F-actin- dependent. Translocates to the Golgi in response to phorbol ester or nerve growth factor. Localizes to somata and dendrites but not to axons of hippocampal pyramidal cells (By similarity).

#### **Tissue Location**

Expressed in brain with higher expression in cerebellum, cerebral cortex and amygdala. Expressed in the hematopoietic system. Expressed in T-cells (at protein level) Expressed in NK cells (at protein level) (PubMed:19933860)

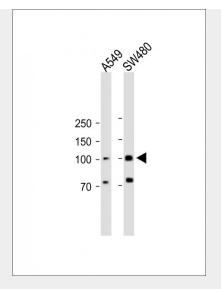
## **RASGRP1** Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

RASGRP1 Antibody (Center) - Images



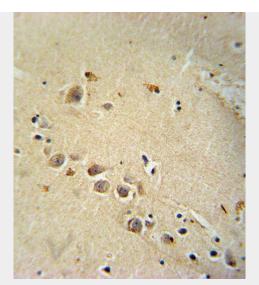


All lanes : Anti-RASGRP1 Antibody (Center) 1:1000 dilution Lane 1: A549 whole cel lysate Lane 2: SW480 whole cel lysate Lysates/proteins at 20  $\mu$ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ASP1615) at 1/15000 dilution. Observed band size : 100kDa Blocking/Dilution buffer: 5% NFDM/TBST.

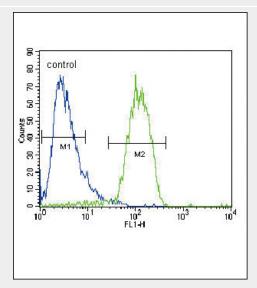
250 150	
100 75	-4
50	
37	

RASGRP1 Antibody (Center) (Cat. #AP5856c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the RASGRP1 antibody detected the RASGRP1 protein (arrow).





RASGRP1 Antibody (Center) (Cat. #AP5856c) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the RASGRP1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



RASGRP1 Antibody (Center) (Cat. #AP5856c) flow cytometric analysis of HepG2 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

# **RASGRP1** Antibody (Center) - Citations

 RasGRP1 induces autophagy and transformation-associated changes in primary human keratinocytes