

Rasgrp1 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54263**Specification**

Rasgrp1 Polyclonal Antibody - Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	O95267
Reactivity	Rat, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	90 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Rasgrp1
Epitope Specificity	701-797/797
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell Membrane, Cytoplasmic, Endoplasmic reticulum and Golgi Apparatus. Found in membrane fraction. Relocalization to the cell membrane upon activation is F-actin-dependent. Translocates to the Golgi in response to phorbol ester or nerve growth factor.
SIMILARITY	Belongs to the RASGRP family. Contains 2 EF-hand domains. Contains 1 N-terminal Ras-GEF domain. Contains 1 phorbol-ester/DAG-type zinc finger.
SUBUNIT	Contains 1 Ras-GEF domain. Forms a signaling complex with DGKZ and HRAS. Interacts with F-actin. Interacts with SKAP1.
Post-translational modifications	Defects in RASGRP1 may contribute to susceptibility to systemic lupus erythematosus (SLE) [MIM:152700]. SLE is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. SLE is thought to represent a failure of the regulatory mechanisms of the autoimmune system. Note=Aberrantly spliced isoforms and/or diminished levels of RASGRP1 are found in a cohort of SLE patients raising the possibility that dysregulation of this signaling protein contributes to the

DISEASE

development of autoimmunity in a subset of SLE patients. Defects in RASGRP1 may contribute to susceptibility to systemic lupus erythematosus (SLE) [MIM:152700]. SLE is a chronic, inflammatory and often febrile multisystemic disorder of connective tissue. It affects principally the skin, joints, kidneys and serosal membranes. SLE is thought to represent a failure of the regulatory mechanisms of the autoimmune system. Note=Aberrantly spliced isoforms and/or diminished levels of RASGRP1 are found in a cohort of SLE patients raising the possibility that dysregulation of this signaling protein contributes to the development of autoimmunity in a subset of SLE patients.

Important Note

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

Background Descriptions

This gene is a member of a family of genes characterized by the presence of a Ras superfamily guanine nucleotide exchange factor (GEF) domain. It functions as a diacylglycerol (DAG)-regulated nucleotide exchange factor specifically activating Ras through the exchange of bound GDP for GTP. It activates the Erk/MAP kinase cascade and regulates T-cells and B-cells development, homeostasis and differentiation. Alternatively spliced transcript variants encoding different isoforms have been identified. Altered expression of the different isoforms of this protein may be a cause of susceptibility to systemic lupus erythematosus (SLE). [provided by RefSeq, Jul 2008].

Rasgrp1 Polyclonal Antibody - 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

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

Dilution

IHC-P ~ ~ N/A
IHC-F ~ ~ N/A
IF ~ ~ 1:50 ~ 200
ICC ~ ~ N/A
E ~ ~ N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

Storage

Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Rasgrp1 Polyclonal Antibody - 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:15899849, PubMed:23908768, PubMed:27776107, PubMed:29155103). Activates the Erk/MAP kinase cascade (PubMed:15899849). Regulates T-cell/B-cell development, homeostasis and differentiation by coupling T-lymphocyte/B-lymphocyte antigen receptors to Ras (PubMed:10807788, PubMed:12839994, PubMed:27776107, PubMed:29155103). Regulates NK cell cytotoxicity and ITAM-dependent cytokine production by activation of Ras-mediated ERK and JNK pathways (PubMed:19933860). Functions in mast cell degranulation and cytokine secretion, regulating FcERI-evoked allergic responses. May also function in differentiation of other cell types (PubMed:12845332).

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 Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Rasgrp1 Polyclonal Antibody - Images