

Rabbit Anti-Rasgrp1 antibody

SL10436R

Product Name Rasgrp1

Chinese Name Ras 蛋白特异鸟嘌呤核苷酸释放因子 1 抗体

Alias Calcium and DAG-regulated guanine nucleotide exchange factor II; CALDAG-GEFI; CALDAG-GEFII; Guanine nucleotide exchange factor, calcium and DAG regulated, Rap1A; hRasGRP1; Ras activator RasGRP; RAS guanyl nucleotide releasing protein 1; RAS guanyl releasing protein 1 (calcium and DAG-regulated); RAS guanyl releasing protein 1; RASGRP; RASGRP1; GRP1_HUMAN.

Research Area Tumour Neurobiology Signal transduction Binding protein G protein-coupled receptor G protein signal

Immunogen Species Rabbit

Clonality Polyclonal

React Species (predicted: Human, Mouse, Rat, Dog, Rabbit,)

IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
(Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 90kDa

Cellular localization The cell membrane Extracellular matrix

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human Rasgrp1: 701-797/797

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

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

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diagnostic applications.

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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].

Function:

RasGRP1 is a Ras-specific exchange factor, which is activated by T-cell receptor (TCR) and promotes TCR-dependent positive selection of thymocytes. RasGRP1 is highly expressed on most T lymphocytic leukemias and is a common site of proviral insertion in retrovirus-induced murine T-cell lymphomas.

Subunit:

Forms a signaling complex with DGKZ and HRAS. Interacts with F-actin. Interacts with SKAP1.

Product Detail

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.

Tissue 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).

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 development of autoimmunity in a subset of SLE patients.

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.
Contains 1 Ras-GEF domain.

SWISS:
O95267

Gene ID:
10125

Database links:

[Entrez Gene: 10125](#) Human

[Entrez Gene: 19419](#) Mouse

[Omim: 603962](#) Human

[SwissProt: O95267](#) Human

[SwissProt: Q9Z1S3](#) Mouse

[Unigene: 591127](#) Human

[Unigene: 42150](#) Mouse