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RASGRP1 Rabbit mAb

Catalog # AP76314

Product Information

Application	WB
Primary Accession	O95267
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Purification	Affinity Purified
Calculated MW	90402

Additional Information

Gene ID	10125
Other Names	RASGRP1
Dilution	WB~~1:1000-1:5000
Format	Liquid in 50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40%Glycerol, 0.01% sodium azide and 0.05% BSA.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

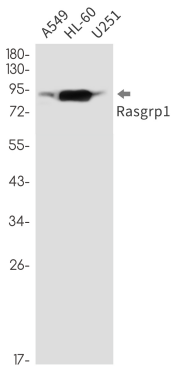
Name	RASGRP1
Synonyms	RASGRP
Function	Functions as a calcium- and diacylglycerol (DAG)-regulated nucleotide exchange factor specifically activating Ras through the exchange of bound GDP for GTP (PubMed:15899849, PubMed:23908768, PubMed:27776107, PubMed:29155103). Activates the Erk/MAP kinase cascade (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)

Background

RASGRP1 (RAS guanyl-releasing protein 1) is a Ras guanine nucleotide exchange factor, and an essential regulator of lymphocyte receptor signaling (PMID: 33065764). RasGRP1 is a bifunctional regulator that promotes acute inflammation and inhibits inflammation-associated cancer (PMID: 36385095). RasGRP1, a downstream target gene of VEGF, regulates the development, homeostasis, and differentiation of T cells (PMID: 37429143).

Images



Western blot analysis of Rasgrp1 in A549, HL-60, U251 lysates using RASGRP1 antibody.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.