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Rabbit Anti-RASGRP2/Cy5.5 Conjugated antibody

SL19735R-Cy5.5

Product Name	Anti-RASGRP2/Cy5.5
Chinese Name	Cy5.5 标记的 Ras 蛋白特异鸟嘌呤核苷酸释放因子 2 抗体
Alias	Calcium and DAG-regulated; Calcium and DAG-regulated guanine nucleotide exchange factor I; Calcium-and diacylglycerol-regulated guanine nucleotide exchange factor I; CalDAG-GEFI; Cdc25 like protein; Cdc25-like protein; F25B3.3 kinase like protein; F25B3.3 kinase-like protein; GRP2_HUMAN; hCDC25L; RAS guanyl releasing protein 2; RAS guanyl-releasing protein 2; Rasgrp2.
Research Area	Cell biology Signal transduction Binding protein G protein-coupled receptor Epigenetics
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	(predicted:Human,Mouse,Rat,Cow)
Applications	ICC/IF=1:50-200,IF=1:100-500 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight	69kDa
Form	Lyophilized or Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human RASGRP2
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 protein encoded by this gene is a brain-enriched nucleotide exchanged factor that contains an N-terminal GEF domain, 2 tandem repeats of EF-hand calcium-binding motifs, and a C-terminal diacylglycerol/phorbol ester-binding domain. This protein can activate small GTPases, including RAS and RAP1/RAS3. The nucleotide exchange activity of this protein can be stimulated by calcium and diacylglycerol. Three alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

Function:
Functions as a calcium- and DAG-regulated nucleotide exchange factor specifically activating Rap through the exchange of bound GDP for GTP. May also activates other GTPases such as RRAS, RRAS2, NRAS, KRAS but not HRAS. Functions in aggregation of platelets and adhesion of T-lymphocytes and neutrophils probably through inside-out integrin activation. May function in the muscarinic acetylcholine receptor M1/CHRM1 signaling pathway.

Subcellular Location:
Cytoplasm > cytosol. Cell membrane. Cell junction > synapse > synaptosome. Cell projection > ruffle membrane. Found both in the cytosol and associated with membranes. Isoform 2 mainly localizes to the cell membrane. Enriched at juxtamembrane areas and membrane ruffles through association with F-actin. Localizes to the cell bodies and axons of striatal neurons.

Tissue Specificity:
Detected in platelets, neutrophils and T lymphocytes (at protein level). Expressed in brain where it is enriched in the striatum. Also expressed in the hematopoietic system. Detected in heart, brain, lung, placenta, liver, skeletal muscle and kidney.

Post-translational modifications:
Isoform 2 is palmitoylated and myristoylated while isoform 1.

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.

Database links:

Entrez Gene: 10235 Human

Entrez Gene: 512056 Cow

Entrez Gene: 19395 Mouse

Entrez Gene: 361714 Rat

Omim: 605577 Human

SwissProt: A6N9I4 Cow

SwissProt: Q7LDG7 Human

SwissProt: Q9QUG9 Mouse

SwissProt: P0C643 Rat

Unigene: 99491 Human

Unigene: 77017 Mouse

Unigene: 38473 Rat

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