10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

RAP2A Antibody (N-Term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21767a

Product Information

Application	WB, E
Primary Accession	P10114
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	polyclonal
Isotype	Rabbit IgG
Clone Names	RB53677
Calculated MW	20615

Additional Information

Gene ID	5911
Other Names	Ras-related protein Rap-2a, RbBP-30, RAP2A
Target/Specificity	This RAP2A antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 16-38 amino acids from human RAP2A.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	RAP2A Antibody (N-Term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAP2A (HGNC:9861)
Function	Small GTP-binding protein which cycles between a GDP-bound inactive and a GTP-bound active form (PubMed:14966141, PubMed:15342639, PubMed:16246175, PubMed:16540189, PubMed:18930710, PubMed:20159449, PubMed:35293963). In its active form interacts with and regulates several effectors including MAP4K4, MINK1 and TNIK (PubMed:14966141, PubMed:15342639, PubMed:18930710,

PubMed:20159449). Part of a signaling complex composed of NEDD4, RAP2A and TNIK which regulates neuronal dendrite extension and arborization during development (PubMed:20159449). More generally, it is part of several signaling cascades and regulates cytoskeletal rearrangements, cell migration, cell adhesion and cell spreading (PubMed:14966141, PubMed:15342639, PubMed:16246175, PubMed:16540189, PubMed:18930710, PubMed:20159449, PubMed:35293963).

Cellular Location

Midbody. Cell projection, lamellipodium membrane. Golgi apparatus. Recycling endosome membrane; Lipid-anchor; Cytoplasmic side. Lysosome. Note=Localized to the Golgi (PubMed:35293963, PubMed:7962206). May also localize to the gelatinase- containing granules of neutrophils (PubMed:8391995). Colocalized with RASGEF1B to midbody at telophase (PubMed:23894443). Localized predominantly to the plasma membrane, where it is enriched at lamellipodia ruffles (PubMed:35293963). Cycles between the lamellipodia plasma membrane and endosomes when ubiquitinated by the ECS(RAB40B) complex (PubMed:35293963). Without the ubiquitin signal, sorted to lysosomes for degradation (PubMed:35293963)

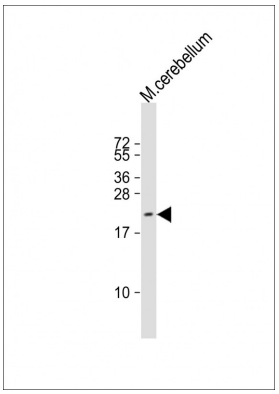
Background

Small GTP-binding protein which cycles between a GDP- bound inactive and a GTP-bound active form. In its active form interacts with and regulates several effectors including MAP4K4, MINK1 and TNIK. Part of a signaling complex composed of NEDD4, RAP2A and TNIK which regulates neuronal dendrite extension and arborization during development. More generally, it is part of several signaling cascades and may regulate cytoskeletal rearrangements, cell migration, cell adhesion and cell spreading.

References

Pizon V.,et al.Oncogene 3:201-204(1988).
Fan Z.S.,et al.Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Puhl H.L. III,et al.Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Dunham A.,et al.Nature 428:522-528(2004).

Images



Anti-RAP2A Antibody (N-Term) at 1:1000 dilution + mouse cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 21 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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