RPGF2 Monoclonal Antibody

Catalog No	YP-mAb-06018
Isotype	IgG
Reactivity	Human;Rat;Mouse
Applications	WB
Gene Name	RAPGEF2 KIAA0313 NRAPGEP PDZGEF1
Protein Name	Rap guanine nucleotide exchange factor 2 (Neural RAP guanine nucleotide exchange protein) (nRap GEP) (PDZ domain-containing guanine nucleotide exchange factor 1) (PDZ-GEF1) (RA-GEF)
Immunogen	Synthesized peptide derived from human protein . at AA range: 190-270
Specificity	RPGF2 Monoclonal Antibody detects endogenous levels of protein.
Formulation	Liquid in PBS containing 50% glycerol, and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-1:2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	
Observed Band	164kD
Cell Pathway	Cytoplasm. Cytoplasm, perinuclear region. Cell membrane. Late endosome. Cell junction . Associated with the synaptic plasma membrane. Colocalizes with ADRB1 at the plasma membrane. Synaptosome. Enriched in synaptic plasma membrane and neuronal cell body. Colocalized with CTNNB1 at cell-cell contacts (By similarity). Localized diffusely in the cytoplasm before neuronal growth factor (NGF) stimulation. Recruited to late endosomes after NGF stimulation. Colocalized with the high affinity nerve growth factor receptor NTRK1 at late endosomes. Translocated to the perinuclear region in a RAP1A-dependent manner. Translocated to the cell membrane. .
Tissue Specificity	Expressed in primary neuronal and endocrine cells (at protein level). Highest expression levels in brain. Lower expression levels in heart, kidney, lung, placenta and blood leukocytes.
Function	function:Guanine nucleotide exchange factor (GEF) for Rap1A, Rap1B and Rap2B GTPases. Does not interact with cAMP or cGMP.,PTM:Phosphorylated upon DNA damage, probably by ATM or ATR.,similarity:Contains 1 cyclic nucleotide-binding domain.,similarity:Contains 1 N-terminal Ras-GEF domain.,similarity:Contains 1 PDZ (DHR) domain.,similarity:Contains 1 Ras-associating domain.,similarity:Contains 1 Ras-GEF domain.,subcellular

	location:Associated with the synaptic plasma membrane.,subunit:Interacts with MAGI2.,tissue specificity:Highest expression levels in brain. Lower expression levels in heart, kidney, lung, and placenta.,
Background	Members of the RAS (see HRAS; MIM 190020) subfamily of GTPases function in signal transduction as GTP/GDP-regulated switches that cycle between inactive GDP- and active GTP-bound states. Guanine nucleotide exchange factors (GEFs), such as RAPGEF2, serve as RAS activators by promoting acquisition of GTP to maintain the active GTP-bound state and are the key link between cell surface receptors and RAS activation (Rebhun et al., 2000 [PubMed 10934204]).[supplied by OMIM, Mar 2008],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

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