Datasheet for ABIN7167107

# anti-RAPGEF2 antibody (AA 1393-1498) (HRP)

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## Overview

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| Quantity: | 100 µg |
| Target: | RAPGEF2 |
| Binding Specificity: | AA 1393-1498 |
| Reactivity: | Human |
| Host: | Rabbit |
| Clonality: | Polyclonal |
| Conjugate: | This RAPGEF2 antibody is conjugated to HRP |
| Application: | ELISA |

## Product Details

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| Immunogen: | Recombinant Human Rap guanine nucleotide exchange factor 2 protein (1393-1498AA) |
| Isotype: | IgG |
| Cross-Reactivity: | Human |
| Purification: | >95%, Protein G purified |

## Target Details

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| Target: | RAPGEF2 |
| Alternative Name: | RAPGEF2 (RAPGEF2 Products) |
| Background: | Background: Functions as a guanine nucleotide exchange factor (GEF), which activates Rap and Ras family of small GTPases by exchanging bound GDP for free GTP in a cAMP-dependent |

## Target Details

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| | manner. Serves as a link between cell surface receptors and Rap/Ras GTPases in intracellular signaling cascades. Acts also as an effector for Rap1 by direct association with Rap1-GTP thereby leading to the amplification of Rap1-mediated signaling. Shows weak activity on HRAS. It is controversial whether RAPGEF2 binds cAMP and cGMP (PubMed:23800469, PubMed:10801446) or not (PubMed:10608844, PubMed:10548487, PubMed:11359771). Its binding to ligand-activated beta-1 adrenergic receptor ADRB1 leads to the Ras activation through the G(s)-alpha signaling pathway. Involved in the cAMP-induced Ras and Erk1/2 signaling pathway that leads to sustained inhibition of long term melanogenesis by reducing dendrite extension and melanin synthesis. Provides also inhibitory signals for cell proliferation of melanoma cells and promotes their apoptosis in a cAMP-independent nanner. Regulates cAMP-induced neuritogenesis by mediating the Rap1/B-Raf/ERK signaling through a pathway that is independent on both PKA and RAPGEF3/RAPGEF4. Involved in neuron migration and in the formation of the major forebrain fiber connections forming the corpus callosum, the anterior commissure and the hippocampal commissure during brain development. Involved in neuronal growth factor (NGF)-induced sustained activation of Rap1 at late endosomes and in brain-derived neurotrophic factor (BDNF)-induced axon outgrowth of hippocampal neurons. Plays a role in the regulation of embryonic blood vessel formation and in the establishment of basal junction integrity and endothelial barrier function. May be involved in the regulation of the vascular endothelial growth factor receptor KDR and cadherin CDH5 expression at allantois endothelial cell-cell junctions.<br>Aliases: CNrasGEF antibody, Cyclic nucleotide ras GEF antibody, KIAA0313 antibody, Neural RAP guanine nucleotide exchange protein antibody, nRap GEP antibody, NRAPGEP antibody, PDZ domain containing guanine nucleotide exchange factor 1 antibody, PDZ domain-containing guanine nucleotide exchange factor 1 antibody, PDZ GEF1 antibody, PDZ-GEF1 antibody, PDZGEF1 antibody, RA GEF antibody, RA-GEF-1 antibody, Rap guanine nucleotide exchange factor 2 antibody, Rapgef2 antibody, Ras/Rap1-associating GEF-1 antibody, RPGF2_HUMAN antibody |
| UniProt: | Q9Y4G8 |
| Pathways: | Neurotrophin Signaling Pathway |

## Application Details

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| Application Notes: | Optimal working dilution should be determined by the investigator. |
| Restrictions: | For Research Use only |

## Handling

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| Format: | Liquid |
| Buffer: | Preservative: 0.03 % Proclin 300<br>Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4 |
| Preservative: | ProClin |
| Precaution of Use: | This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C,-80 °C |
| Storage Comment: | Upon receipt, store at -20°C or -80°C. Avoid repeated freeze. |