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RHOG Antibody

Catalog # ASC11858

Product Information

Application	WB, E, IHC-P
Primary Accession	P84095
Other Accession	NP_001656, 46249393
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	21309
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	RHOG antibody can be used for detection of RHOG by Western blot at 1 - 2 g/ml. Antibody can also be used for immunohistochemistry starting at 5 g/mL.

Additional Information

Gene ID	391
Other Names	Rho-related GTP-binding protein RhoG, RHOG, ARHG
Target/Specificity	RHOG; RHOG antibody is human, mouse and rat reactive.
Reconstitution & Storage	RHOG antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.
Precautions	RHOG Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RHOG
Synonyms	ARHG
Function	Plays a role in immunological synaptic F-actin density and architecture organization (PubMed:33513601). Regulates actin reorganization in lymphocytes, possibly through the modulation of Rac1 activity (PubMed:33513601). Acts as an activator of the ELMO-DOCK-Rac pathway (PubMed:32651375, PubMed:38857861). Required for the formation of membrane ruffles during macropinocytosis (PubMed:15133129). Plays a role in cell migration and is required for the formation of cup-like structures during trans-endothelial migration of leukocytes (PubMed:17875742). Binds phospholipids in an activation-dependent manner; thereby acting as an anchor for other proteins to the plasma membrane (PM) (PubMed:33513601).

Plays a role in exocytosis of cytotoxic granules (CG) by lymphocytes/Component of the exocytosis machinery in natural killer (NK) and CD8+ T cells (PubMed:33513601). Promotes the docking of cytotoxic granules (CG) to the plasma membrane through the interaction with UNC13D (PubMed:33513601). Involved in the cytotoxic activity of lymphocytes/primary CD8+ T cells (PubMed:33513601).

Cellular Location Cell membrane; Lipid-anchor; Cytoplasmic side

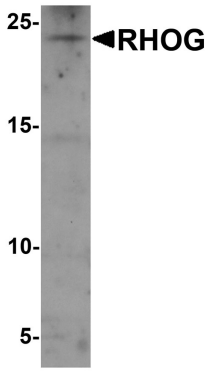
Background

The ras homolog family member G (RHOG), also known as rho-related GTP-binding protein, is a member of the Rho family of small GTPases, which cycle between inactive GDP-bound and active GTP-bound states and function as molecular switches in signal transduction cascades (1). RHOG controls a pathway that requires the microtubule network and activates Rac1 and Cdc42Hs independently of their growth factor signaling pathway (2). RHOG is also involved in the transcriptional regulation of interferon-gamma and nuclear factor of activated T cells (NFAT) and the regulation of the actin skeleton in lymphocytes (3).

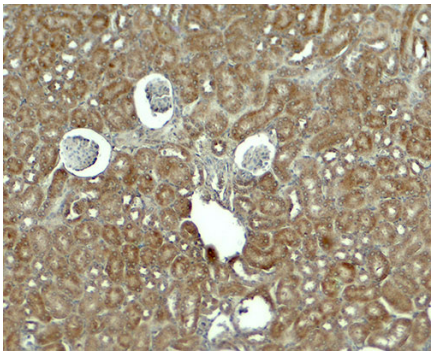
References

Vincent S, Janteur P, and Fort P. Growth-regulated of rhoG, a new member of the ras homolog family. Mol. Cell Biol. 1992; 12:3138-48.
Gauthier-Rouviere C, Vignal E, Meriane M, et al. RhoG GTPase controls a pathway that independently activates Rac1 and Cdc42Hs. Mol. Biol. Cell 1998; 9:1379-94.
Vigorito E, Billadeu DD, Savoy D, et al. RhoG regulates gene expression and the actin skeleton in lymphocytes. Oncogene 2003; 22:330-42.

Images



Western blot analysis of RHOG in human kidney tissue lysate with RHOG antibody at 1 µg/ml.



Immunohistochemistry of RHOG in mouse kidney tissue with RHOG antibody at 5 µg/ml.

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