OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM26229PU-N

GEF H1 (ARHGEF2) Mouse Monoclonal Antibody [Clone ID: B4/7]

Product data:

Product Type:	Primary Antibodies
Clone Name:	B4/7
Applications:	IF, IHC, IP, WB
Recommended Dilution:	Immunohistochemstry on frozen sections (1): Cells were either fixed with methanol at -20 °C or with 3% PFA followed by permeabilization with Triton X-100. The typical starting working dilution is 1:50. Immunoflourescence (1-4). Immunprecipitation (1-3). Western blot (1-4): A non-reduced and/or reduced sample treatment and 6-15 % gradient SDS-PAGE was used. The band size is 110 kDa (Ref1-3). The typical starting working dilution is 1:50. Positive control: MDCK cells.
Reactivity:	Canine, Human, Mouse
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Specificity:	The monoclonal antibody B4/7 recognizes guanine nucleotide exchange factor H1 (GEF-H1).
Formulation:	PBS State: Purified State: Liquid 0.2 µm filtered Ig fraction Stabilizer: 0.1% bovine serum albumin Preservative: 0.02% sodium azide
Concentration:	lot specific
Purification:	Protein G
Conjugation:	Unconjugated
Storage:	Store at 2 - 8 °C.
Stability:	Shelf life: one year from despatch.
Gene Name:	Rho/Rac guanine nucleotide exchange factor 2

View online »

Database Link: Entrez Gene 9181 Human
Q92974

Background: GEFH1 is an ~110 kDa protein belonging to the Dbl family of proto-oncogenes. GEF-H1 can activate the small GTPase RhoA, but not Rac1 or Cdc42. Rho family GTPases are central regulators of epithelial tight junctions and the cytoskeleton. GEF-H1 can associate with different cytoskeletal structures, namely microtubules and the actin cytoskeleton. It has also been proposed to mediate crosstalk between the two types of filaments.
Localization of GEF-H1 differs between cell types. In MRC-5 fibroblast cells, GEF-H1 localizes to stress fibers. In epithelial cells, GEF-H1 is associated with apical tight junctions and involved in regulating paracellular permeability of small hydrophilic tracers. Furthermore, its subcellular localization changes in mitotic cells, where endogenous GEF-H1 is concentrated at mitotic spindles. GEF-H1 is capable of binding to the F-actin binding junctional adaptor cingulin. Binding to cingulin inhibits GEF-H1 and results in the downregulation of RhoA and inhibition of G1/S phase transition. In low confluent cultured cells, the localization of GEF-H1 is predominantly cytoplasmic. With increasing density of the cells, free GEF-H1 is sequestered at the tight junctions by cingulin.
GEF-H1 is part of the signaling pathway connecting epithelial polarity with the cell cycle, and as such involved in oncogenesis.

Synonyms: KIAA0651, LFP40, GEF-H1