

EPAC1 Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51831

Product Information

Application WB, ICC Primary Accession 095398

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW103751

Additional Information

Gene ID 10411

Other Names Rap guanine nucleotide exchange factor 3, Exchange factor directly activated

by cAMP 1, Exchange protein directly activated by cAMP 1, EPAC 1, Rap1

guanine-nucleotide-exchange factor directly activated by cAMP,

cAMP-regulated guanine nucleotide exchange factor I, cAMP-GEFI, RAPGEF3,

CGEF1, EPAC, EPAC1

Dilution WB~~1:1000 ICC~~N/A

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name RAPGEF3

Synonyms CGEF1, EPAC, EPAC1

Function Guanine nucleotide exchange factor (GEF) for RAP1A and RAP2A small

GTPases that is activated by binding cAMP. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which it activates the PI3K gamma complex and which is involved in angiogenesis. Plays a role in the modulation of the cAMP- induced dynamic control of endothelial barrier function through a pathway that is independent on Rho-mediated signaling. Required for the actin rearrangement at cell-cell

junctions, such as stress fibers and junctional actin.

Cellular Location Endomembrane system

Tissue Location Widely expressed with highest levels in adult kidney, heart, thyroid and brain,

and fetal kidney

Background

Guanine nucleotide exchange factor (GEF) for RAP1A and RAP2A small GTPases that is activated by binding cAMP. Through simultaneous binding of PDE3B to RAPGEF3 and PIK3R6 is assembled in a signaling complex in which it activates the PI3K gamma complex and which is involved in angiogenesis. Plays a role in the modulation of the cAMP-induced dynamic control of endothelial barrier function through a pathway that is independent on Rho- mediated signaling. Required for the actin rearrangement at cell- cell junctions, such as stress fibers and junctional actin.

References

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Ota T.,et al.Nat. Genet. 36:40-45(2004).
Scherer S.E.,et al.Nature 440:346-351(2006).
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. de Rooij J.,et al.Nature 396:474-477(1998).

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