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EPAC1 Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51831

Product Information

Application	WB, ICC
Primary Accession	O95398
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	103751

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

Kawasaki H.,et al.Science 282:2275-2279(1998).
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).