

RAPGEF3 / EPAC Antibody (N-Terminus)
Rabbit Polyclonal Antibody
Catalog # ALS16612**Specification**

RAPGEF3 / EPAC Antibody (N-Terminus) - Product Information

Application	IHC, IF, WB
Primary Accession	O95398
Other Accession	10411
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	103751

RAPGEF3 / EPAC Antibody (N-Terminus) - Additional Information**Gene ID** 10411**Other Names**

RAPGEF3, Bcm910, CAMP-GEFI, CGEF1, HSU79275, EPAC, EPAC 1, EPAC1

Target/Specificity

Human RAPGEF3 / EPAC. At least two isoforms of EPAC1 are known to exist; this antibody will detect both isoforms. EPAC1 antibody is predicted to not cross-react with EPAC2.

Reconstitution & Storage

PBS, 0.02% sodium azide. Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles. Store undiluted.

Precautions

RAPGEF3 / EPAC Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

RAPGEF3 / EPAC Antibody (N-Terminus) - 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

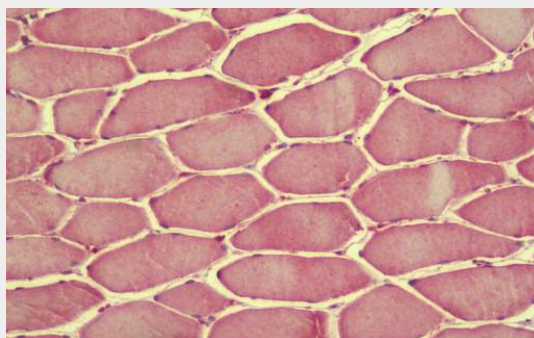
Tissue Location

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

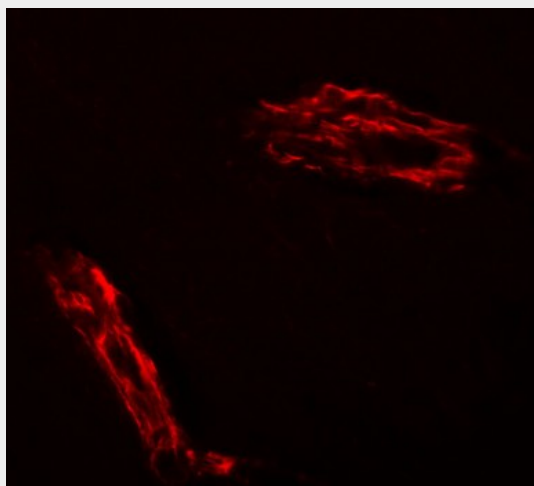
RAPGEF3 / EPAC Antibody (N-Terminus) - Protocols

Provided below are standard protocols that you may find useful for product applications.

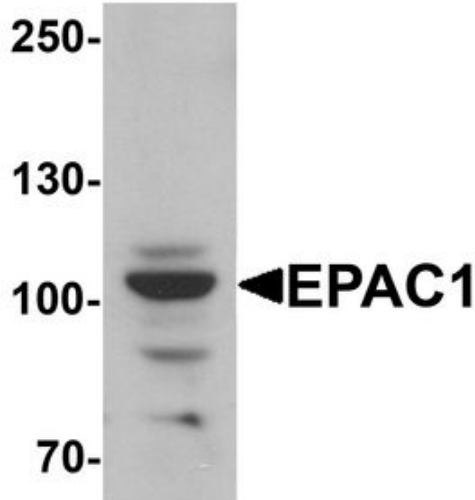
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

RAPGEF3 / EPAC Antibody (N-Terminus) - Images

Anti-RAPGEF3 / EPAC antibody IHC staining of human skeletal muscle.



Immunofluorescence of EPAC1 in rat brain tissue with EPAC1 antibody at 20 µg/mL.



Western blot analysis of EPAC1 in rat skeletal muscle tissue lysate with EPAC1 antibody at 1 ug/ml.

RAPGEF3 / EPAC Antibody (N-Terminus) - 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.

RAPGEF3 / EPAC Antibody (N-Terminus) - 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).