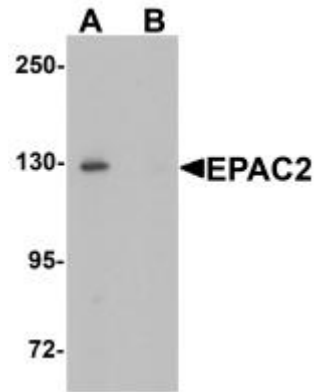


Polyclonal Antibody to RAPGEF4 (N-term) - Aff - Purified

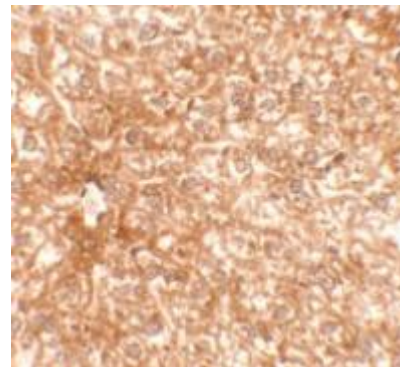
Alternate names:	CGEF2, EPAC 2, EPAC2, Exchange factor directly activated by cAMP 2, Exchange protein directly activated by cAMP 2, Rap guanine nucleotide exchange factor 4, cAMP-GEFII, cAMP-regulated guanine nucleotide exchange factor II
Catalog No.:	TA319831
Quantity:	0.1 mg
Concentration:	1.0 mg/ml
Background:	EPAC2, also known as Rap guanine nuclear exchange factor 4 (RAPGEF4) and cAMPGEF-II, is belongs to a family of cyclic adenosine monophosphate (cAMP) binding proteins with guanine nucleotide exchange factor. Like the related protein EPAC1, EPAC2 signaling plays a role in numerous cellular processes such as integrin-mediated cell adhesion, muscle contraction, learning and memory, cell proliferation, and inflammation. Recent evidence suggests that EPAC2 induces synapse remodeling and depression, with mutations in its gene being found in patients with autism.
Uniprot ID:	Q8WZA2
NCBI:	NP_008954
GeneID:	11069
Host / Isotype:	Rabbit / IgG
Immunogen:	15 amino acid synthetic peptide near the amino terminus of human RAPGEF4 / EPAC2 (AP55604CP-N)
Format:	State: Liquid purified Ig fraction Purification: Affinity chromatography purified via peptide column Buffer System: PBS containing 0.02% Sodium Azide as preservative
Applications:	Western blot: 1-2 µg/ml. <i>Positive Control:</i> Rat liver tissue lysate. Immunohistochemistry on Paraffin section: Start at 2.5 µg/ml. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	At least two isoforms of RAPGEF4 / EPAC2 are known to exist. This antibody will detect only the larger isoform.
Species Reactivity:	Tested: Human, Mouse, Rat
Add. Information:	Blocking peptide available: AP55604CP-N
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Shelf life: one year from despatch.

- General Readings:**
1. Ueno H, Shibasaki T, Iwanaga T, Takahashi K, Yokoyama Y, Liu LM, et al. Characterization of the gene EPAC2: structure, chromosomal localization, tissue expression, and identification of the liver-specific isoform. *Genomics*. 2001 Nov;78(1-2):91-8. PubMed PMID: 11707077.
 2. Grandoch M, Roscioni SS, Schmidt M. The role of Epac proteins, novel cAMP mediators, in the regulation of immune, lung and neuronal function. *Br J Pharmacol*. 2010 Jan 1;159(2):265-84. doi: 10.1111/j.1476-5381.2009.00458.x. Epub 2009 Nov 11. PubMed PMID: 19912228.
 3. Holz GG, Kang G, Harbeck M, et al. Cell physiology of cAMP sensor Epac. *J. Physiol*. 2006; 577:5-15.

Pictures: Western blot analysis of EPAC2 in rat liver tissue lysate with EPAC2 antibody at 1 ug/mL in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of EPAC3 in mouse liver tissue with EPAC3 antibody at 2.5 ug/mL.



Immunofluorescence of EPAC2 in mouse liver tissue with EPAC2 antibody at 20 ug/mL.

