

# Anti-Epac1 Antibody [4G3]

## RT1204



<b>Product Type:</b>	Mouse monoclonal IgG1, primary antibodies
<b>Species reactivity:</b>	Human, Rat, Hamster
<b>Applications:</b>	WB, IP, IF, IHC-P
<b>Molecular Wt:</b>	99 kDa
<b>Clone number:</b>	4G3

**Description:** 3',5' cyclic adenosine monophosphate (cAMP)-regulated guanine nucleotide exchange factors Epac (Epac1, cAMP-GEFI) and Epac2 (cAMP-GEFII) activate the Ras family GTPases Rap 1 and Rap 2 by promoting GTP binding in a cAMP-dependent manner. Eukaryotic cAMP is a second messenger that induces physiological responses such as gene expression, growth, differentiation, secretion and neurotransmission. The human Epac gene maps to chromosome 12q13.11 with transcript being abundant in the kidney and heart. In situ hybridization indicates expression of Epac in adult rat brain and selective expression in neonatal brain, including septum and thalamus.

**Immunogen:** peptide

**Positive control:** HeLa, Caki, CHO.

**Subcellular location:** Endomembrane system

**Database links:** SwissProt: O95398 Human

### Recommended Dilutions:

<b>WB</b>	1:100-1:1,000
<b>IP</b>	1-2 µg per 100-500 µg of total protein(1 ml of cell lysate)
<b>IF</b>	1:50-1:500
<b>IHC-P</b>	1:50-1:500

**Storage Buffer:** 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**Storage Instruction:** Store at +4°C

**Purity:** Protein A affinity purified.

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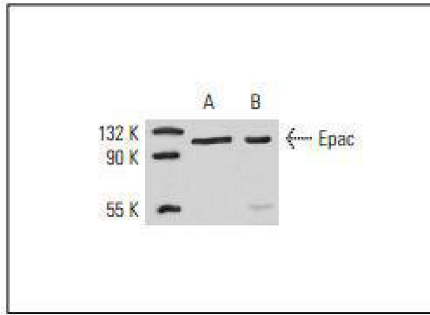
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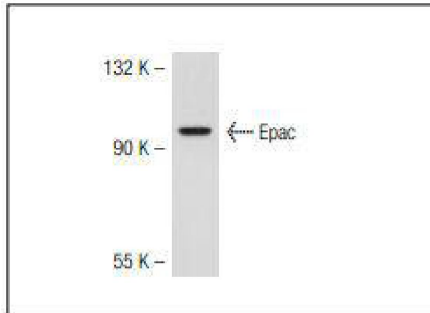
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## Images



**Fig1:** A. Western blot analysis of Epac expression in Caki (A) and CHO (B) whole cell lysates.



**Fig2:** B. Western blot analysis of Epac expression in HeLa whole cell lysate.

**Note:** All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

## Background References

1. Hewer, RC. et al. 2011. PKA and Epac synergistically inhibit smooth muscle cell proliferation. *J. Mol. Cell. Cardiol.* 50: 87-98.
2. Hoque, KM. et al. 2010. Epac1 mediates protein kinase A-independent mechanism of forskolin-activated intestinal chloride secretion. *J. Gen. Physiol.* 135: 43-58.
3. Banales, JM. et al. 2009. The cAMP effectors Epac and protein kinase a (PKA) are involved in the hepatic cystogenesis of an animal model of autosomal recessive polycystic kidney disease (ARPKD). *Hepatology.* 49: 160-174.

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