



## Rabbit Anti-Epac2 antibody

SL10955R

<b>Product Name:</b>	Epac2
<b>Chinese Name:</b>	鸟嘌呤核苷酸交换因子4
<b>Alias:</b>	CAMP GEFII; cAMP regulated guanine nucleotide exchange factor II; cAMP-GEFII; cAMP-regulated guanine nucleotide exchange factor II; CAMPGEFII; CGEF 2; CGEF2; Epac 2; EPAC2; Exchange factor directly activated by cAMP 2; Exchange protein directly activated by cAMP 2; Nbla00496; Putative protein product of Nbla00496; Rap guanine nucleotide exchange factor (GEF) 4; RAP guanine nucleotide exchange factor 4; RAPGEF 4; RAPGEF4; RPGF4 HUMAN.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Human,Mouse,Rat,Dog,Pig,Cow,Horse,Sheep,
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	116kDa
<b>Cellular localization:</b>	cytoplasmicThe cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from human Epac2:151-250/1011
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>
<b>Product Detail:</b>	3',5' cyclic adenosine monophosphate (cAMP)-regulated guanine nucleotide exchange factors Epac1 (cAMP-GEFI) and Epac2 (cAMP-GEFII) activate the ras family GTPases

Rap1 and Rap2 by promoting GTP binding in a cAMP-dependent manner (1,2). Eukaryotic cAMP is a second messenger that induces physiological responses such as gene expression, growth, differentiation, secretion and neurotransmission (3). Human EPAC2 contains at least 31 exons and maps to chromosome 2q31 (4). The 4.4-kb Epac2 transcript is prominent in brain and adrenal gland (5,6). Within the brain, expression is strong in cortex, occipital pole, frontal lobe, temporal lobe, amygdala, putamen, hippocampus and cerebellum (5,6).

**Function:**

Guanine nucleotide exchange factor (GEF) for RAP1A, RAP1B and RAP2A small GTPases that is activated by binding cAMP. Seems not to activate RAB3A. Involved in cAMP-dependent, PKA-independent exocytosis through interaction with RIMS2.

**Subunit:**

Interacts with RIMS1 and RIMS2. Probably part of a complex with RIMS2 and GTP-activated RAB3A.

**Subcellular Location:**

Cytoplasm. Membrane.

**Tissue Specificity:**

Predominantly expressed in brain and adrenal gland. Isoform 2 is expressed in liver. Isoform 1 is expressed in liver at very low levels.

**Similarity:**

Contains 2 cyclic nucleotide-binding domains. Contains 1 DEP domain.  
Contains 1 N-terminal Ras-GEF domain.  
Contains 1 Ras-GEF domain.

**SWISS:**

Q8WZA2

**Gene ID:**

11069

**Database links:**

[Entrez Gene: 11069](#)Human

[Entrez Gene: 56508](#)Mouse

[Entrez Gene: 252857](#)Rat

[Omim: 606058](#)Human

[SwissProt: Q8WZA2](#)Human

[SwissProt: Q9EQZ6](#)Mouse

[SwissProt: Q9Z1C7](#)Rat

[Unigene: 470646](#)Human

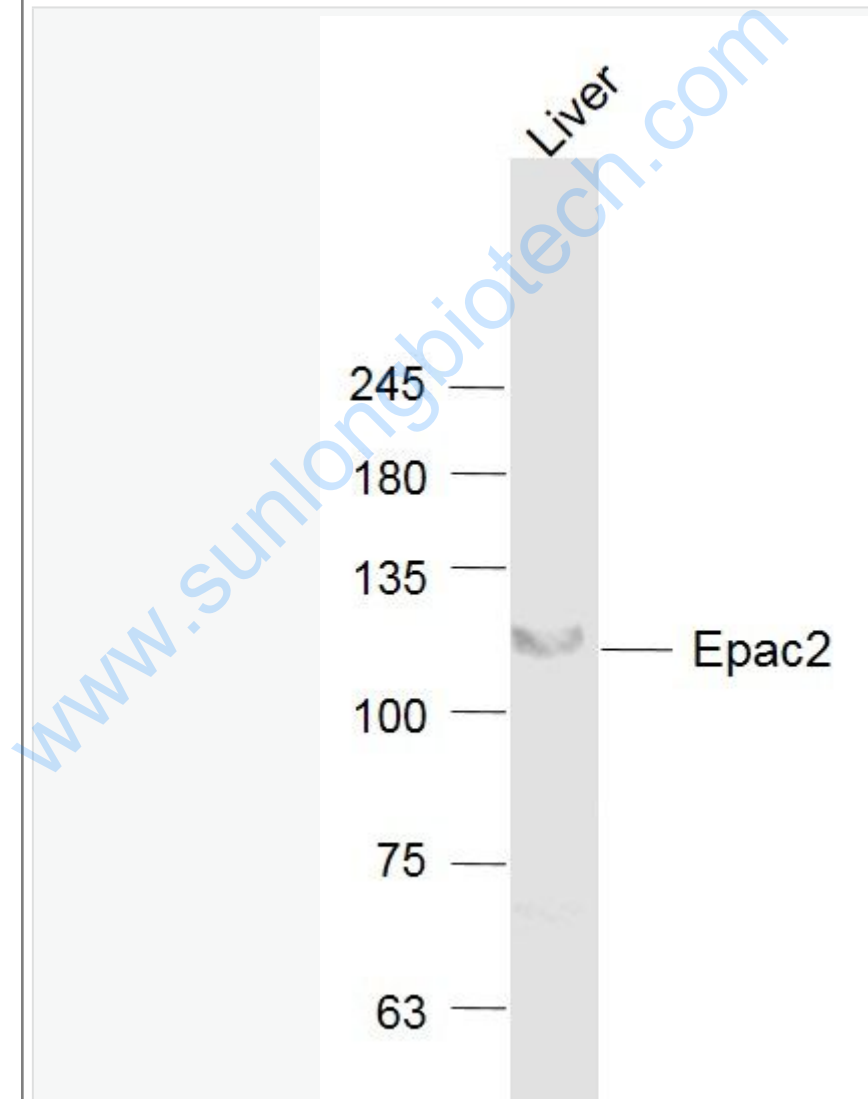
[Unigene: 196153](#)Mouse

[Unigene: 42890](#)Rat

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

**Picture:**



Sample:

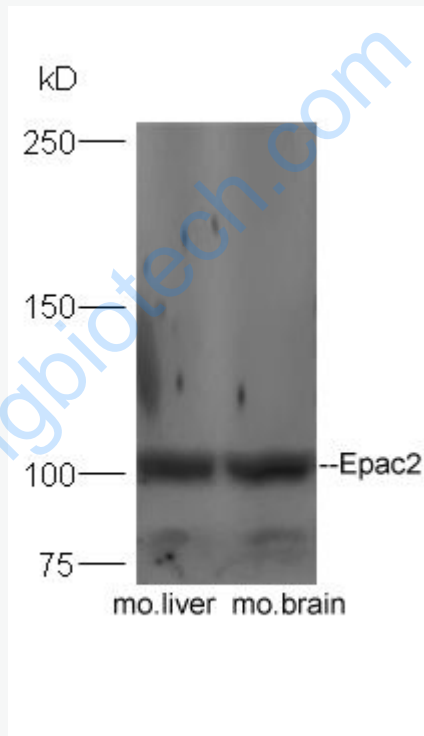
Liver (Mouse) Lysate at 40 ug

Primary: Anti-aEpac2 (SL10955R) at 1/1000 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 116 kD

Observed band size: 116 kD



Protein:

liver(mouse) lysate at 40ug;

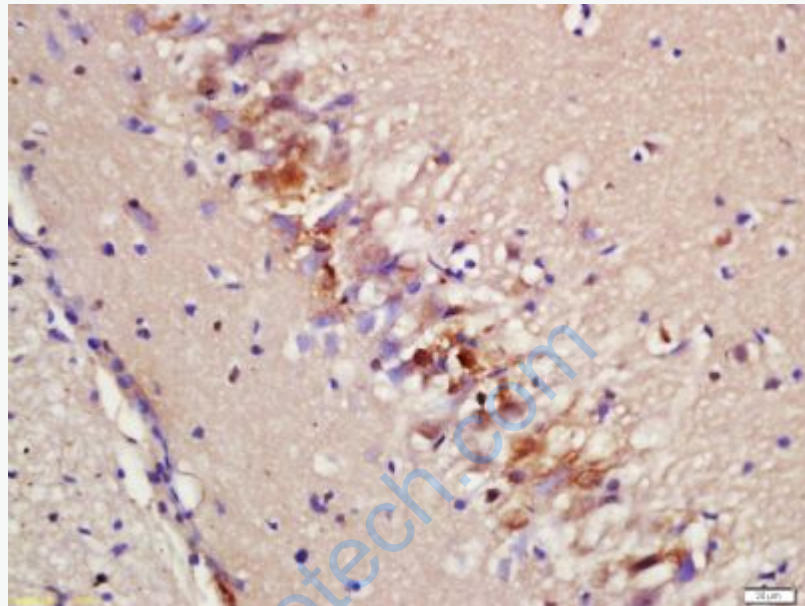
brain(mouse) lysate at 40ug;

Primary: rabbit Anti-Epac2 (SL10955R) at 1:300;

Secondary: HRP conjugated Goat-Anti-rabbit IgG(SL10955R) at 1: 5000;

Predicted band size: 116 kD

Observed band size: 116 kD



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;  
Antigen retrieval: citrate buffer ( 0.01M, pH 6.0 ), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;  
Incubation: Anti-Epac2 Polyclonal Antibody, Unconjugated(SL10955R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining