

Anti-Epac1 Antibody [JM63-29]

ET1705-79



Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Mouse, Rat
Applications:	WB, IHC-P, IF-Tissue
Molecular Wt:	Predicted band size: 104 kDa
Clone number:	JM63-29

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: Synthetic peptide within Human Epac1 aa 874-923 / 923.

Positive control: HUVEC cell lysate, mouse kidney tissue lysate, rat brain tissue lysate, human prostate tissue, human stomach carcinoma tissue, mouse kidney tissue.

Subcellular location: Endomembrane system.

Database links: SwissProt: O95398 Human | Q8VCC8 Mouse | Q9Z1C8 Rat

Recommended Dilutions:

WB	1:1,000
IHC-P	1:50-1:200
IF-Tissue	1:10-1:50

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Protein A affinity purified.

Hangzhou Huaan Biotechnology Co., Ltd.

Orders:0086-571-88062880

Technical:0086-571-89986345

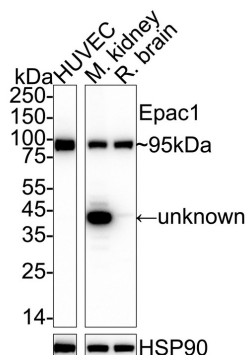
Service mail:support@huabio.cn

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Images

Fig1: Western blot analysis of Epac1 on different lysates with Rabbit anti-Epac1 antibody (ET1705-79) at 1/1,000 dilution.

Lane 1: HUVEC cell lysate (20 µg/Lane)
Lane 2: Mouse kidney tissue lysate (40 µg/Lane)
Lane 3: Rat brain tissue lysate (40 µg/Lane)



Predicted band size: 104 kDa
Observed band size: 95 kDa

Exposure time: 40 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDm/TBST for 1 hour at room temperature. The primary antibody (ET1705-79) at 1/1,000 dilution was used in 5% NFDm/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

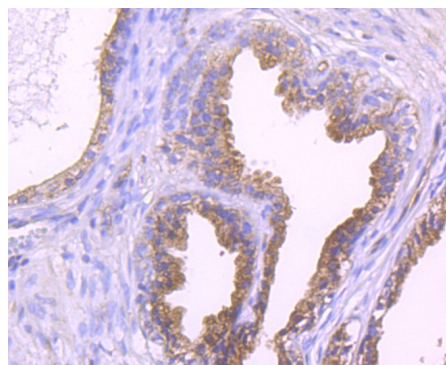


Fig2: Immunohistochemical analysis of paraffin-embedded human prostate tissue using anti-Epac1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ET1705-79, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

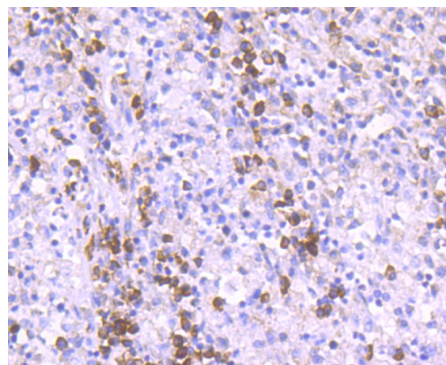


Fig3: Immunohistochemical analysis of paraffin-embedded human stomach carcinoma tissue using anti-Epac1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ET1705-79, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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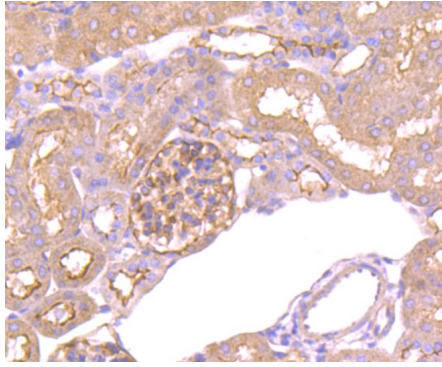


Fig4: Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-Epac1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes. The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH₂O and PBS, and then probed with the primary antibody (ET1705-79, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

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

Background References

1. Guibinga GH et al. Deficiency of the purine metabolic gene HPRT dysregulates microRNA-17 family cluster and guanine-based cellular functions: a role for EPAC in Lesch-Nyhan syndrome. *Hum Mol Genet* 22:4502-15 (2013).
2. Yi L et al. TLR signaling paralyzes monocyte chemotaxis through synergized effects of p38 MAPK and global Rap-1 activation. *PLoS One* 7:e30404 (2012).

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