

For Research Use Only

EPAC1 Polyclonal antibody

Catalog Number: 12572-1-AP

1 Publications



Basic Information

Catalog Number:

12572-1-AP

Concentration:

700 µg/ml

Source:

Rabbit

Isotype:

IgG

Immunogen Catalog Number:

AG3240

GenBank Accession Number:

BC017728

GeneID (NCBI):

10411

UNIPROT ID:

O95398

Full Name:

Rap guanine nucleotide exchange factor (GEF) 3

Calculated MW:

881 aa, 99 kDa

Observed MW:

99-104 kDa

Purification Method:

Antigen affinity purification

Recommended Dilutions:

WB 1:500-1:2000

IHC 1:50-1:500

IF-P 1:50-1:500

Applications

Tested Applications:

WB, IHC, IF-P, ELISA

Cited Applications:

WB

Species Specificity:

human, mouse, rat, hamster

Cited Species:

human

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : CHO cells, mouse brain tissue, rat brain tissue

IHC : human stomach cancer tissue,

IF-P : mouse testis tissue,

Background Information

EPAC1 functions as a guanine nucleotide exchange factor (GEF), activating small GTPases like Rap1 and Rap2, leading to diverse cellular response. Epac proteins are cAMP sensors that regulate several pivotal cellular processes, including calcium handling, cell proliferation, cell survival, cell differentiation, cell polarization, cell adhesion events, gene transcription, secretion, ion transport, and neuronal signaling. It is a potential target for therapeutic intervention, such as metabolic disorders, cardiovascular diseases (PMID: 20007405, PMID: 20421979). EPAC1 also enhances brown fat growth and beige adipogenesis (PMID: 38195707).

Notable Publications

Author	Pubmed ID	Journal	Application
Sarah Ciurus	39985685	Cell Mol Life Sci	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:

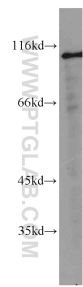
T: 4006900926

E: Proteintech-CN@ptglab.com

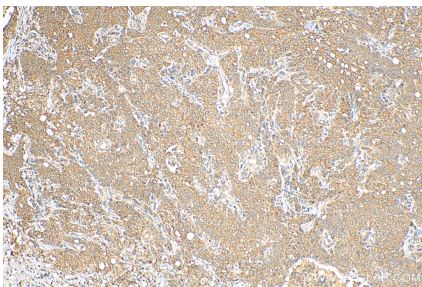
W: ptgcn.com

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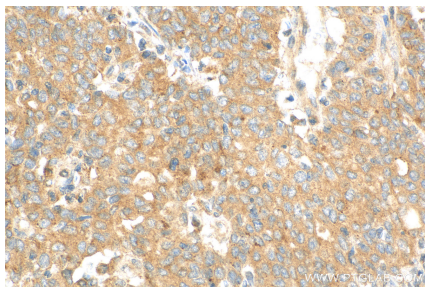
Selected Validation Data



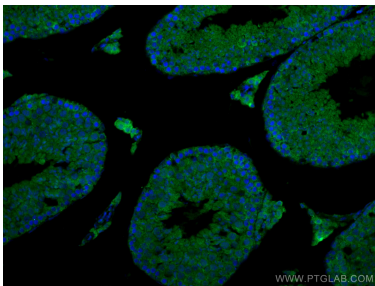
CHO cells were subjected to SDS PAGE followed by western blot with 12572-1-AP (EPAC1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



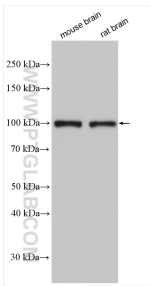
Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 12572-1-AP (EPAC1 antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human stomach cancer tissue slide using 12572-1-AP (EPAC1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of (4% PFA) fixed mouse testis tissue using 12572-1-AP (EPAC1 antibody) at dilution of 1:100 and CoraLite488-Conjugated Goat Anti-Rabbit IgG(H+L).



Various lysates were subjected to SDS PAGE followed by western blot with 12572-1-AP (EPAC1 antibody) at dilution of 1:800 incubated at room temperature for 1.5 hours.