

**Datasheet for 600-401-BB1****EPAC1 Antibody****Overview**

|                      |                                            |
|----------------------|--------------------------------------------|
| <b>Description:</b>  | Anti-EPAC1 (RABBIT) Antibody - 600-401-BB1 |
| <b>Item No.:</b>     | 600-401-BB1                                |
| <b>Size:</b>         | 100 µg                                     |
| <b>Applications:</b> | ELISA, IF, IHC, WB                         |
| <b>Reactivity:</b>   | Human, Mouse, Rat                          |
| <b>Host Species:</b> | Rabbit                                     |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | EPAC1, also known as Rap guanine nuclear exchange factor 3 and cAMPGEF-I, is widely expressed but most prominently in brain, heart, kidney, pancreas, spleen, ovary, thyroid and spinal cord. EPAC1 is a cAMP-binding protein with intrinsic guanine nuclear exchange factor activity that couples cAMP production to the activation of Rap, a GTPase belonging to the Ras family. This activation of Rap influences numerous cellular processes such as integrin-mediated cell adhesion, vascular endothelial barrier formation, and cardiac myocyte gap junction formation. Recently, EPAC1 has been suggested to also be involved in the cAMP-dependent regulation of ion channel formation, intracellular Ca <sup>++</sup> signaling, ion transporter activity, and exocytosis. |
| <b>Synonyms:</b>     | EPAC1 Antibody, EPAC, EPAC1, bcm910, HSU79275, CAMP-GEFI, CGEF1, EPAC, Rap guanine nucleotide exchange factor 3, Exchange factor directly activated by cAMP 1, EPAC 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Host Species:</b> | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

**Target Details**

|                        |                    |
|------------------------|--------------------|
| <b>Gene Name:</b>      | RAPGEF3            |
| <b>Reactivity:</b>     | Human, Mouse, Rat  |
| <b>Immunogen Type:</b> | Conjugated Peptide |

|                            |                                                                                                                                                                                                                                                                |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen:</b>          | Anti-EPAC1 antibody was prepared from whole rabbit serum produced by repeated immunizations with an 18 amino acid synthetic peptide near the N-terminus of human EPAC1.                                                                                        |
| <b>Purity/Specificity:</b> | Anti-EPAC1 Antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. At least two isoforms of EPAC1 are known to exist; this antibody will detect both isoforms. EPAC1 antibody is predicted to not cross-react with EPAC2. |
| <b>Relevant Links:</b>     | <ul style="list-style-type: none"><li>• <a href="#">UniProtKB - O95398</a></li><li>• <a href="#">GeneID - 10411</a></li><li>• <a href="#">NCBI - NP_659099</a></li></ul>                                                                                       |

## Application Details

|                             |                                                                                                                                                                                                                                                                                            |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b> | ELISA, IF, IHC, WB                                                                                                                                                                                                                                                                         |
| <b>Application Note:</b>    | Anti-EPAC1 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 103 kDa in Western Blots of specific cell lysates and tissues. |
| <b>Assay Dilutions:</b>     | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                            |
| <b>ELISA:</b>               | 1:10,000                                                                                                                                                                                                                                                                                   |
| <b>IF:</b>                  | 20 µg/mL                                                                                                                                                                                                                                                                                   |
| <b>IHC:</b>                 | 2.5 µg/mL                                                                                                                                                                                                                                                                                  |
| <b>WB:</b>                  | 1 µg/mL                                                                                                                                                                                                                                                                                    |

## Formulation

|                        |                                                         |
|------------------------|---------------------------------------------------------|
| <b>Physical State:</b> | Liquid (sterile filtered)                               |
| <b>Concentration:</b>  | 1 mg/mL by UV absorbance at 280 nm                      |
| <b>Buffer:</b>         | 0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2 |
| <b>Preservative:</b>   | 0.02% (w/v) Sodium Azide                                |
| <b>Stabilizer:</b>     | None                                                    |

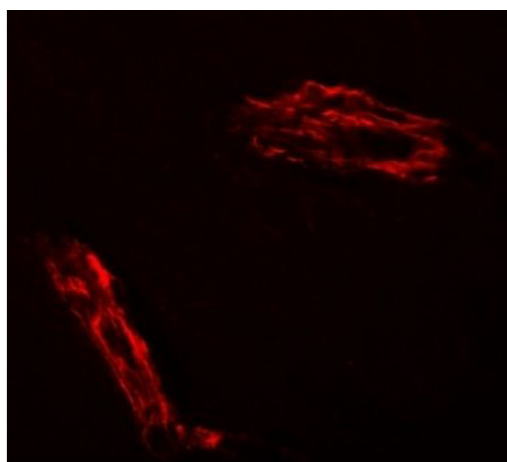
## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Dry Ice |
|----------------------------|---------|

**Storage Condition:** Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

**Expiration:** Expiration date is one (1) year from date of receipt.

## Images

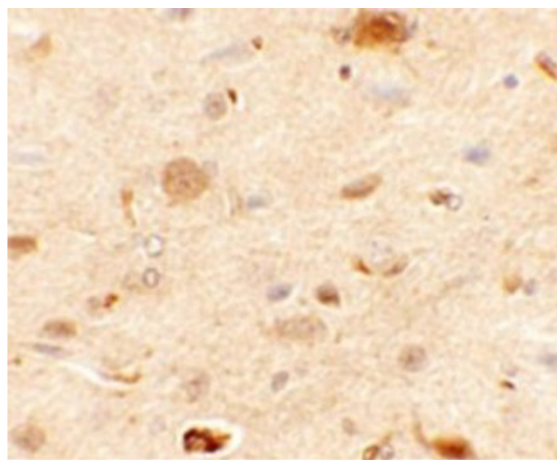


### Immunofluorescence Microscopy

Immunofluorescence of EPAC1.

Tissue: rat brain tissue.

Primary Antibody: EPAC1 antibody at 20 µg/mL.

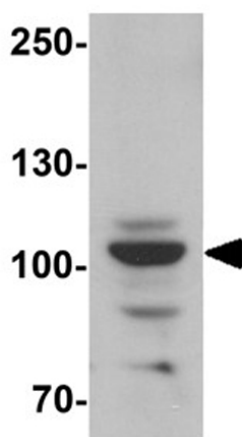


### Immunohistochemistry

Immunohistochemistry of EPAC1.

Tissue: rat brain tissue.

Primary Antibody: EPAC1 antibody at 2.5 µg/mL.

**Western Blot**

Western blot analysis of EPAC1.

Load: rat skeletal muscle tissue lysate.

Primary Antibody: EPAC1 antibody at 1 µg/mL.

**Disclaimer**

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.