**Epac2 (A-7): sc-28326**

**BACKGROUND**

3',5' cyclic adenosine monophosphate (cAMP)-regulated guanine nucleotide exchange factors Epac1 (cAMP-GEF1) 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. Human Epac2 contains at least 31 exons and maps to chromosome 2q31.1. The 4.4-kb Epac2 transcript is prominent in brain and adrenal gland. Within the brain, expression is strong in cortex, occipital pole, frontal lobe, temporal lobe, amygdala, putamen, hippocampus and cerebellum.

**CHROMOSOMAL LOCATION**

Genetic locus: RAPGEF4 (human) mapping to 2q31.1; Rapgef4 (mouse) mapping to 2 C3.

**SOURCE**

Epac2 (A-7) is a mouse monoclonal antibody raised against amino acids 1-220 of Epac2 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Epac2 (A-7) is available conjugated to agarose (sc-28326 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-28326 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-28326 PE), fluorescein (sc-28326 FITC), Alexa Fluor® 488 (sc-28326 AF488), Alexa Fluor® 594 (sc-28326 AF594) or Alexa Fluor® 647 (sc-28326 AF647), 200 µg/ml, for IF, IHC(P) and FCM; or to either Alexa Fluor® 680 (sc-28326 AF680) or Alexa Fluor® 790 (sc-28326 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Epac2 (A-7) is recommended for detection of Epac2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Epac2 (A-7) is also recommended for detection of Epac2 in additional species, including bovine.


Molecular Weight of Epac2: 126 kDa.

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.