SANTA CRUZ BIOTECHNOLOGY, INC.

PDE2A (G-12): sc-271394

BACKGROUND

Phosphodiesterases (PDEs) are important for the downregulation of the intracellular level of the second messenger cyclic adenosine monophosphate (cAMP) by hydrolyzing cAMP to 5'AMP. Human cyclic GMP-stimulated 3',5'-cyclic nucleotide phosphodiesterase (PDE2A) is expressed in cerebellum, neocortex, heart, kidney, placenta, lung, pulmonary artery, skeletal muscle and pancreas. PDE2A expression is detected in venous and capillary endothelial cells in cardiac and renal tissue.

CHROMOSOMAL LOCATION

Genetic locus: PDE2A (human) mapping to 11q13.4; Pde2a (mouse) mapping to 7 E3.

SOURCE

PDE2A (G-12) is a mouse monoclonal antibody raised against amino acids 1-300 of PDE2A of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PDE2A (G-12) is available conjugated to agarose (sc-271394 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271394 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271394 PE), fluorescein (sc-271394 FITC), Alexa Fluor® 488 (sc-271394 AF488), Alexa Fluor® 546 (sc-271394 AF546), Alexa Fluor® 594 (sc-271394 AF594) or Alexa Fluor® 647 (sc-271394 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271394 AF680) or Alexa Fluor® 790 (sc-271394 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

APPLICATIONS

PDE2A (G-12) is recommended for detection of PDE2A of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for PDE2A siRNA (h): sc-41590, PDE2A siRNA (m): sc-41591, PDE2A shRNA Plasmid (h): sc-41590-SH, PDE2A shRNA Plasmid (m): sc-41591-SH, PDE2A shRNA (h) Lentiviral Particles: sc-41590-V and PDE2A shRNA (m) Lentiviral Particles: sc-41591-V.

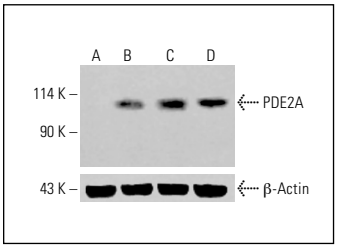
Molecular Weight of PDE2A: 105 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, rat brain extract: sc-2392 or human brain extract: sc-364375.

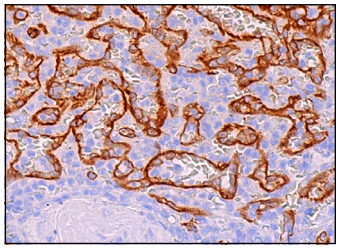
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



PDE2A (G-12): sc-271394. Western blot analysis of PDE2A expression in untreated (**A**) and chemically-treated (**B**, **C**, **D**) K-562 whole cell lysates. Detection reagent used: m-IgG_1 BP-HRP: sc-525408. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



PDE2A (G-12): sc-271394. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane and cytoplasmic staining of endothelial cells.

SELECT PRODUCT CITATIONS

1. Matsui, Y., et al. 2019. Dual role of a C-terminally truncated isoform of large tumor suppressor kinase 1 in the regulation of hippo signaling and tissue growth. DNA Cell Biol. 38: 91-106.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.