

PDE8B (I-16): sc-17234

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. PDE8A is a high affinity cAMP-specific protein that is expressed in a wide variety of tissues including testis, ovary, small intestine, and colon. PDE8B is expressed specifically and abundantly in the thyroid gland and shares 65% sequence identity (83% similarity) with PDE8A.

CHROMOSOMAL LOCATION

Genetic locus: PDE8B (human) mapping to 5q13.3; Pde8b (mouse) mapping to 13 D1.

SOURCE

PDE8B (I-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PDE8B of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-17234 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

PDE8B (I-16) is recommended for detection of PDE8B of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

PDE8B (I-16) is also recommended for detection of PDE8B in additional species, including equine and porcine.

Suitable for use as control antibody for PDE8B siRNA (h): sc-41618, PDE8B siRNA (m): sc-41619, PDE8B shRNA Plasmid (h): sc-41618-SH, PDE8B shRNA Plasmid (m): sc-41619-SH, PDE8B shRNA (h) Lentiviral Particles: sc-41618-V and PDE8B shRNA (m) Lentiviral Particles: sc-41619-V.

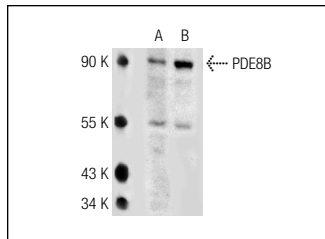
Molecular Weight of PDE8B multiple isoforms: 40-100 kDa.

Positive Controls: SK-BR-3 cell lysate: sc-2218 or HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PDE8B (I-16): sc-17234. Western blot analysis of PDE8B expression in HeLa (A) and SK-BR-3 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Shimizu-Albergine, M., et al. 2012. cAMP-specific phosphodiesterases 8A and 8B, essential regulators of Leydig cell steroidogenesis. *Mol. Pharmacol.* 81: 556-566.
- Oliva, A.A., et al. 2012. Phosphodiesterase isoform-specific expression induced by traumatic brain injury. *J. Neurochem.* 123: 1019-1029.

RESEARCH USE

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

PROTOCOLS

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