

PDE4A1 (N-17): sc-25080

BACKGROUND

Phosphodiesterases (PDE) hydrolyze cAMP to 5'AMP and thus play a critical role in the regulation of intracellular cAMP. Division of the PDE superfamily by sequence homology and enzymatic properties yields 11 PDE families. A unique upstream conserved region (UCR) characterizes the PDE4 family. Four separate genes (A-D) encode the PDE4 enzymes, and alternative splicing generates short or long isoforms of each gene. Long PDE4 isoforms contain both UCR1 and UCR2 while short PDE4 isoforms possess only UCR2. Both UCR domains are necessary for dimerization of PDE4 isoforms. The human PDE4A gene maps to chromosome 19p13.2 and spans 50 kilobases with 17 exons. The splice variants include isoforms PDE4A1-6.

CHROMOSOMAL LOCATION

Genetic locus: PDE4A (human) mapping to 19q13.2; Pde4a (mouse) mapping to 9 A3.

SOURCE

PDE4A1 (N-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of PDE4A1 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-25080 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.

RESEARCH USE

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

APPLICATIONS

PDE4A1 (N-17) is recommended for detection of PDE4A1 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).

PDE4A1 (N-17) is also recommended for detection of PDE4A1 in additional species, including canine.

Suitable for use as control antibody for PDE4A siRNA (h): sc-41596, PDE4A siRNA (m): sc-41597, PDE4A shRNA Plasmid (h): sc-41596-SH, PDE4A shRNA Plasmid (m): sc-41597-SH, PDE4A shRNA (h) Lentiviral Particles: sc-41596-V and PDE4A shRNA (m) Lentiviral Particles: sc-41597-V.

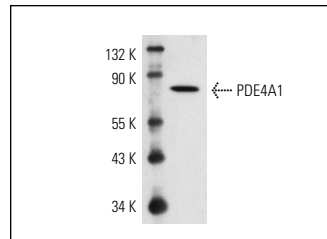
Molecular Weight of PDE4A1: 80 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204 or SH-SY5Y cell lysate: sc-3812.

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



PDE4A1 (N-17): sc-25080. Western blot analysis of PDE4A1 expression in Jurkat whole cell lysate.

PROTOCOLS

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


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Try **PDE4A (H-7): sc-74428**, our highly recommended monoclonal alternative to PDE4A1 (N-17).