

PDE6G/H (D-14): sc-50264

BACKGROUND

Phosphodiesterases (PDEs, also designated cyclic nucleotide phosphodiesterases) are important for the downregulation of the intracellular level of the second messenger cyclic adenosine monophosphate (cAMP), as they are responsible for hydrolyzing cAMP to 5'AMP. PDE6G, also designated phosphodiesterase 6G cGMP-specific rod γ , is an oligomer composed of two catalytic chains (α and β), an inhibitory chain (γ) and an δ chain. PDE6G functions in the processes of transmission and amplification of the visual signal. A mutation in the rod PDE- γ gene desensitizes and delays murine rod photoreceptors. PDE6H, also designated phosphodiesterase 6H cGMP-specific cone γ , is a tetramer composed of two catalytic chains (α and β) and two inhibitory chains (γ). It functions similarly to PDE6H in vision processes. Defects of the PDE6H gene cause retinal cone dystrophy 3 (rcd3), also designated cone dystrophy with night blindness and supernormal rod responses.

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CHROMOSOMAL LOCATION

Genetic locus: PDE6G (human) mapping to 17q25.3, PDE6H (human) mapping to 12p12.3; Pde6g (mouse) mapping to 11 E2, Pde6h (mouse) mapping to 6 G1.

SOURCE

PDE6G/H (D-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PDE6G of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-50264 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

PDE6G/H (D-14) is recommended for detection of PDE6G and PDE6H of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PDE6G/H (D-14) is also recommended for detection of PDE6G and PDE6H in additional species, including equine, canine, porcine and avian.

Molecular Weight of PDE6G/H: 9-9.5 kDa.

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) 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.

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.

PROTOCOLS

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