SANTA CRUZ BIOTECHNOLOGY, INC.

PDE6G/H (FL-87): sc-98466

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. PDEG6G 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.

REFERENCES

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6. Piri, N., Gao, Y.Q., Danciger, M., Mendoza, E., Fishman, G.A. and Farber, D.B. 2005. A substitution of G to C in the cone cGMP-phosphodiesterase γ subunit gene found in a distinctive form of cone dystrophy. Ophthalmology 112: 159-166.

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 (FL-87) is a rabbit polyclonal antibody raised against amino acids 1-87 representing full length PDE6G 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.

APPLICATIONS

PDE6G/H (FL-87) 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), 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).

PDE6G/H (FL-87) is also recommended for detection of PDE6G and PDE6H in additional species, including equine, canine, bovine and avian.

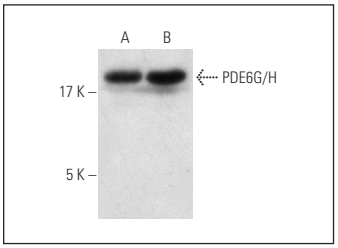
Molecular Weight of PDE6G/H: 9-9.5 kDa.

Positive Controls: rat eye extract: sc-364805 or mouse eye extract: sc-364241.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



PDE6G/H (FL-87): sc-98466. Western blot analysis of PDE6G/H expression in rat eye (**A**) and mouse eye (**B**) tissue extracts.

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.