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Lieferung & Zahlungsart

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- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

PDE9A (h2): 293 Lysate: sc-158830

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) by hydrolyzing cAMP to 5'AMP. Phosphodiesterase 9A (PDE9A) is a 593 amino acid protein that plays a role in signal transduction via regulation of the intracellular concentration of cyclic nucleotides and has a high affinity for cGMP. There are 15 known isoforms of PDE9A. It is expressed in various tissues including testis, brain, small intestine, skeletal muscle, heart, lung, thymus, spleen, placenta, kidney, liver, pancreas, ovary and prostate. Highest levels of PDE9A expression occur in brain, kidney, spleen, colon, heart and colon, while there is no detection of PDE9A in blood. PDE9A is composed of an N-terminal regulatory domain and a C-terminal catalytic domain containing two possible divalent metal sites. It may be implicated in affective bipolar disorder.

REFERENCES

1. Shimosato, Y., et al. 1978. Squamous cell carcinoma of the thymus. An analysis of eight cases. Am. J. Surg. Pathol. 1: 109-121.
2. Soderling, S.H., et al. 1998. Identification and characterization of a novel family of cyclic nucleotide phosphodiesterases. J. Biol. Chem. 273: 15553-15558.
3. Fisher, D.A., et al. 1998. Isolation and characterization of PDE9A, a novel human cGMP-specific phosphodiesterase. J. Biol. Chem. 273: 15559-15564.
4. Guipponi, M., et al. 1998. Identification and characterization of a novel cyclic nucleotide phosphodiesterase gene (PDE9A) that maps to 21q22.3: alternative splicing of mRNA transcripts, genomic structure and sequence. Hum. Genet. 103: 386-392.
5. Rentero, C., et al. 2003. Identification and distribution of different mRNA variants produced by differential splicing in the human phosphodiesterase 9A gene. Biochem. Biophys. Res. Commun. 301: 686-692.
6. Wang, P., et al. 2003. Identification and characterization of a new human type 9 cGMP-specific phosphodiesterase splice variant (PDE9A5). Differential tissue distribution and subcellular localization of PDE9A variants. Gene 314: 15-27.

CHROMOSOMAL LOCATION

Genetic locus: PDE9A (human) mapping to 21q22.3.

PRODUCT

PDE9A (h2): 293 Lysate represents a lysate of human PDE9A transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

PDE9A (h2): 293 Lysate is suitable as a Western Blotting positive control for human reactive PDE9A antibodies. Recommended use: 10-20 µl per lane.

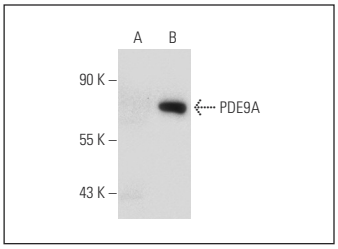
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

PDE9A (G-4): sc-166375 is recommended as a positive control antibody for Western Blot analysis of enhanced human PDE9A expression in PDE9A transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

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.

DATA



PDE9A (G-4): sc-166375. Western blot analysis of PDE9A expression in non-transfected: sc-110760 (**A**) and human PDE9A transfected: sc-158830 (**B**) 293 whole cell lysates.

RESEARCH USE

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