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Lieferung & Zahlungsart

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- Mindermengenzuschlag
- Trockeneiszuschlag
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SANTA CRUZ BIOTECHNOLOGY, INC.

RDH5 (h): 293T Lysate: sc-158923

BACKGROUND

Retinol dehydrogenase 5 (RDH5), also known as 11-*cis* retinol dehydrogenase (11-*cis* RDH) or RDH1, is a 318 amino acid protein belonging to the short-chain dehydrogenases/reductases (SDR) family. Highly expressed in the retinal pigment epithelium and localized to the membrane, RDH5 catalyzes the final step in the biosynthesis of 11-*cis* retinal (11-*cis* retinaldehyde), the universal chromophore of visual pigment, from all-*trans* retinol (vitamin A). RDH5 has been shown to be active in the presence of NAD as a cofactor, but not in the presence of NADP. Mutations in the gene encoding RDH5 lead to Fundus albipunctatus (FA), a rare form of stationary night blindness characterized by delay in the regeneration of cone and rod photopigments.

REFERENCES

1. Yamamoto, H., et al. 1999. Mutations in the gene encoding 11-*cis* retinol dehydrogenase cause delayed dark adaptation and fundus albipunctatus. Nat. Genet. 22: 188-191.
2. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 601617. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
3. Hayashi, T., et al. 2006. Compound heterozygous RDH5 mutations in familial fleck retina with night blindness. Acta Ophthalmol Scand. 84: 254-258.
4. Maeda, A., et al. 2006. Aberrant metabolites in mouse models of congenital blinding diseases: formation and storage of retinyl esters. Biochemistry 45: 4210-4219.
5. Maeda, A., et al. 2006. Improvement in rod and cone function in mouse model of Fundus albipunctatus after pharmacologic treatment with 9-*cis*-retinal. Invest. Ophthalmol. Vis. Sci. 47: 4540-4546.
6. Humbert, G., et al. 2006. Homozygous deletion related to Alu repeats in RLBP1 causes retinitis punctata albescens. Invest. Ophthalmol. Vis. Sci. 47: 4719-4724.

CHROMOSOMAL LOCATION

Genetic locus: RDH5 (human) mapping to 12q13.2.

PRODUCT

RDH5 (h): 293T Lysate represents a lysate of human RDH5 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

RDH5 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive RDH5 antibodies. Recommended use: 10-20 µl per lane.

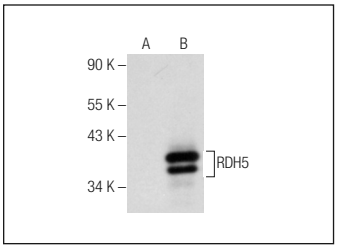
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RDH5 (G-5): sc-377057 is recommended as a positive control antibody for Western Blot analysis of enhanced human RDH5 expression in RDH5 transfected 293T 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



RDH5 (G-5): sc-377057. Western blot analysis of RDH5 expression in non-transfected: sc-117752 (**A**) and human RDH5 transfected: sc-158923 (**B**) 293T whole cell lysates.

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.

RESEARCH USE

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

PROTOCOLS

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