SANTA CRUZ BIOTECHNOLOGY, INC.

RDH11 (F-1): sc-514370

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

RDH11 is a member of the short chain retinol dehydrogenase/reductase family that acts as an oxidoreductive catalyst towards retinoids. Expressed in a wide variety of tissues including the liver and prostate, RDH11 can reduce both *trans*- and *cis*-retinaldehydes, as well as oxidize *trans*-retinols. RDH11 prefers $NADP^+$ as a cofactor and, although it has both oxidative and reductive capabilities, it is more efficient in the reductive direction. In the retinal pigment epithelium, RDH11 completes the final step in the retinoid cycle of pigment regeneration by catalyzing the oxidation of 11-*cis*-retinol to 11-*cis* retinal. No diseases are currently related to mutations in the gene encoding RDH11.

REFERENCES

1. Lin, B., et al. 2001. Prostate short-chain dehydrogenase reductase 1 (PSDR1): a new member of the short-chain steroid dehydrogenase/reductase family highly expressed in normal and neoplastic prostate epithelium. Cancer Res. 61: 1611-1618.
2. Kedishvili, N.Y., et al. 2002. Evidence that the human gene for prostate short-chain dehydrogenase/reductase (PSDR1) encodes a novel retinal reductase (RalR1). J. Biol. Chem. 277: 28909-28915.
3. Haeseleer, F., et al. 2002. Dual-substrate specificity short-chain retinol dehydrogenases from the vertebrate retina. J. Biol. Chem. 277: 45537-45546.
4. Kasus-Jacobi, A., et al. 2003. Characterization of mouse short-chain aldehyde reductase (SCALD), an enzyme regulated by sterol regulatory element-binding proteins. J. Biol. Chem. 278: 32380-32389.
5. Kim, T.S., et al. 2005. Delayed dark adaptation in 11-*cis*-retinol dehydrogenase-deficient mice: a role of RDH11 in visual processes *in vivo*. J. Biol. Chem. 280: 8694-8704.

CHROMOSOMAL LOCATION

Genetic locus: RDH11 (human) mapping to 14q24.1.

SOURCE

RDH11 (F-1) is a mouse monoclonal antibody raised against amino acids 276-318 mapping at the C-terminus of RDH11 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RDH11 (F-1) is available conjugated to agarose (sc-514370 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-514370 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-514370 PE), fluorescein (sc-514370 FITC), Alexa Fluor® 488 (sc-514370 AF488), Alexa Fluor® 546 (sc-514370 AF546), Alexa Fluor® 594 (sc-514370 AF594) or Alexa Fluor® 647 (sc-514370 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-514370 AF680) or Alexa Fluor® 790 (sc-514370 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

RDH11 (F-1) is recommended for detection of RDH11 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for RDH11 siRNA (h): sc-72264, RDH11 shRNA Plasmid (h): sc-72264-SH and RDH11 shRNA (h) Lentiviral Particles: sc-72264-V.

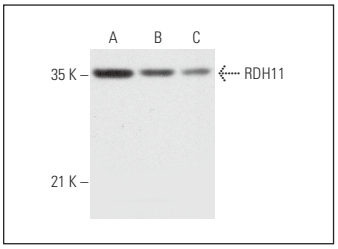
Molecular Weight of RDH11: 39 kDa.

Positive Controls: Hs 181 Tes whole cell lysate: sc-364779, Hep G2 cell lysate: sc-2227 or LNCaP cell lysate: sc-2231.

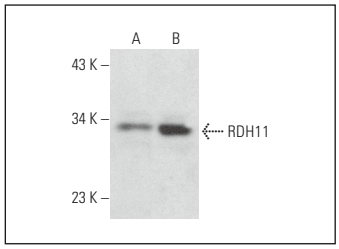
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



RDH11 (F-1): sc-514370. Western blot analysis of RDH11 expression in LNCaP (**A**), Hep G2 (**B**) and Hs 181 Tes (**C**) whole cell lysates.



RDH11 (F-1): sc-514370. Western blot analysis of RDH11 expression in Hep G2 (**A**) and Jurkat (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ichida, H., et al. 2023. Identification of HSD17B12 as an enzyme catalyzing drug reduction reactions through investigation of nabumetone metabolism. Arch. Biochem. Biophys. 736: 109536.

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.