

RDHE2 (h2): 293T Lysate: sc-116966

BACKGROUND

RDHE2 (epidermal retinal dehydrogenase 2), also known as EPHD-2 or retSDR2 (retinal short chain dehydrogenase reductase 2), is a member of the short-chain dehydrogenase/reductase (SDR) family of enzymes that catalyze the first step in the generation of retinaldehyde from retinol. Expressed ubiquitously at low levels with predominant expression in fetal and adult lung, fetal kidney and fetal skin, RDHE2 localizes to the membrane and is a multi-pass membrane protein. RDHE2 contains three motifs that are conserved in most of the SDR family members: a TGXXGXG motif, a YXXK motif (the active-site) and an LXNAG motif. This implies that, similar to other SDR family members, RDHE2 may be involved in the retinol metabolism pathway. In addition, RDHE2 may play a role in the pathogenesis of psoriasis vulgaris, a chronic inflammatory skin disease. This is suggested by the significant upregulation of RDHE2 mRNA levels in the affected skin of psoriasis patients.

REFERENCES

1. Matsuzaka, Y., Okamoto, K., Tsuji, H., Mabuchi, T., Ozawa, A., Tamiya, G. and Inoko, H. 2002. Identification of the hRDHE2 gene, a novel member of the SDR family, and its increased expression in psoriatic lesion. *Biochem. Biophys. Res. Commun.* 297: 1171-1180.
2. Chai, Z., Brereton, P., Suzuki, T., Sasano, H., Obeyesekere, V., Escher, G., Saffery, R., Fuller, P., Enriquez, C. and Krozowski, Z. 2003. 17 β -hydroxysteroid dehydrogenase type XI localizes to human steroidogenic cells. *Endocrinology* 144: 2084-2091.
3. Markova, N.G., Pinkas-Sarafova, A., Karaman-Jurukovska, N., Jurukovski, V. and Simon, M. 2003. Expression pattern and biochemical characteristics of a major epidermal retinol dehydrogenase. *Mol. Genet. Metab.* 78: 119-135.
4. Matsuzaka, Y., Okamoto, K., Yoshikawa, Y., Takaki, A., Oka, A., Mabuchi, T., Iizuka, M., Ozawa, A., Tamiya, G., Kulski, J.K. and Inoko, H. 2004. hRDHE2 gene polymorphisms, variable transcriptional start sites, and psoriasis. *Mamm. Genome* 15: 668-675.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608989. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: SDR16C5 (human) mapping to 8q12.1.

PRODUCT

RDHE2 (h2): 293T Lysate represents a lysate of human RDHE2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

RDHE2 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive RDHE2 antibodies. Recommended use: 10-20 μ l per lane.

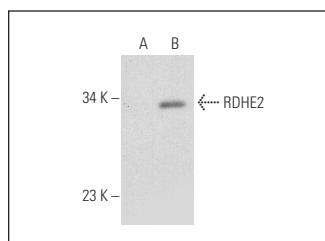
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RDHE2 (36-N): sc-100591 is recommended as a positive control antibody for Western Blot analysis of enhanced human RDHE2 expression in RDHE2 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



RDHE2 (36-N): sc-100591. Western blot analysis of RDHE2 expression in non-transfected: sc-117752 (A) and human RDHE2 transfected: sc-116966 (B) 293T whole cell lysates.

RESEARCH USE

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