

Rev-erb α (N-19): sc-47626

BACKGROUND

Orphan nuclear receptors NR1D1 and NR1D2 are more commonly designated Rev-erb-alpha (Rev-erb α) and Rev-erb-beta (Rev-erb β), respectively. Rev-erb α acts as a receptor for triiodothyronine and is composed of three domains, a modulating N-terminal domain, a C-terminal steroid binding domain and a DNA-binding domain. Rev-erb β binds to the sequences 5'-AATGTAGGTCA-3' and 5'-ATAACTAGGTCA-3' and acts as a competitive repressor of ROR α function. It interacts with NCOA5 co-activator which leads to an increase in transcription. Both Rev-erb α and Rev-erb β are nuclear proteins belonging to the nuclear hormone receptor family of proteins.

REFERENCES

- Laudet, V., Begue, A., Henry-Duthoit, C., Joubel, A., Martin, P., Stehelin, D. and Saule, S. 1991. Genomic organization of the human thyroid hormone receptor α (c-erbA-1) gene. *Nucleic Acids Res.* 19: 1105-1112.
- Dumas, B., Harding, H.P., Choi, H.S., Lehmann, K.A., Chung, M., Lazar, M.A. and Moore, D.D. 1995. A new orphan member of the nuclear hormone receptor superfamily closely related to Rev-erb. *Mol. Endocrinol.* 8: 996-1005.
- Zhao, Q., Khorasanizadeh, S., Miyoshi, Y., Lazar, M.A. and Rastinejad, F. 1998. Structural elements of an orphan nuclear receptor-DNA complex. *Mol. Cell* 1: 849-861.
- Sauve, F., McBroom, L.D., Gallant, J., Giguère, V., Moraitis, A.N. and Labrie, F. 2001. CIA, a novel estrogen receptor coactivator with a bifunctional nuclear receptor interacting determinant. *Mol. Cell. Biol.* 21: 343-353.
- Migita, H., Morser, J. and Kawai, K. 2004. Rev-erb α upregulates NF κ B-responsive genes in vascular smooth muscle cells. *FEBS Lett.* 561: 69-74.
- Laitinen, S., Fontaine, C., Fruchart, J.C. and Staels, B. 2005. The role of the orphan nuclear receptor Rev-erb α in adipocyte differentiation and function. *Biochimie* 87: 21-25.
- Pircher, P., Chomez, P., Yu, F., Vennstrom, B. and Larsson, L. 2005. Aberrant expression of Myosin isoforms in skeletal muscles from mice lacking the rev-erbA α orphan receptor gene. *Am. J. Physiol. Regul. Integr. Comp. Physiol.* 288: R482-R490.

CHROMOSOMAL LOCATION

Genetic locus: NR1D1 (human) mapping to 17q11.2; Nr1d1 (mouse) mapping to 11 D.

SOURCE

Rev-erb α (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Rev-erb α of human origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-47626 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-47626 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Rev-erb α (N-19) is recommended for detection of Rev-erb α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 Rev-erb α siRNA (h): sc-61458, Rev-erb α siRNA (m): sc-61459, Rev-erb α shRNA Plasmid (h): sc-61458-SH, Rev-erb α shRNA Plasmid (m): sc-61459-SH, Rev-erb α shRNA (h) Lentiviral Particles: sc-61458-V and Rev-erb α shRNA (m)

Lentiviral Particles: sc-61459-V.

Rev-erb α (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

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.


 MONOS
 Satisfation
 Guaranteed

Try **Rev-erb α (E-12): sc-393215** or **Rev-erb α (RS-14): sc-100910**, our highly recommended monoclonal alternatives to Rev-erb α (N-19).