

Rev-erb α (H-49): sc-135241

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., et al. 1991. Genomic organization of the human thyroid hormone receptor α (c-erbA-1) gene. *Nucleic Acids Res.* 19: 1105-1112.
- Dumas, B., et al. 1995. A new orphan member of the nuclear hormone receptor superfamily closely related to Rev-erb. *Mol. Endocrinol.* 8: 996-1005.
- Zhao, Q., et al. 1998. Structural elements of an orphan nuclear receptor-DNA complex. *Mol. Cell* 1: 849-861.
- Sauve, F., et al. 2001. CIA, a novel estrogen receptor coactivator with a bifunctional nuclear receptor interacting determinant. *Mol. Cell. Biol.* 21: 343-353.
- Migita, H., et al. 2004. Rev-erb α upregulates NF κ B-responsive genes in vascular smooth muscle cells. *FEBS Lett.* 561: 69-74.
- Laitinen, S., et al. 2005. The role of the orphan nuclear receptor Rev-erb α in adipocyte differentiation and function. *Biochimie* 87: 21-25.

CHROMOSOMAL LOCATION

Genetic locus: NR1D1 (human) mapping to 17q21.1; Nr1d1 (mouse) mapping to 11 D.

SOURCE

Rev-erb α (H-49) is a rabbit polyclonal antibody raised against amino acids 21-69 mapping near the N-terminus of Rev-erb α of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

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.

PROTOCOLS

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

APPLICATIONS

Rev-erb α (H-49) 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), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Rev-erb α (H-49) is also recommended for detection of Rev-erb α in additional species, including bovine.

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.

Molecular Weight of Rev-erb α : 68 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.


 MONOS
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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 (H-49).