

# Rev-erb $\beta$ (M-73): sc-134545

## BACKGROUND

Orphan nuclear receptors NR1D1 and NR1D2 are more commonly designated Rev-erb $\alpha$  and Rev-erb $\beta$ , respectively. Rev-erb $\alpha$  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 $\beta$  binds to the sequences 5'-AATGTAGGTCA-3' and 5'-ATAACTAGGTCA-3' and acts as a competitive repressor of ROR $\alpha$  function. It interacts with NCOA5 co-activator which leads to an increase in transcription. Both Rev-erb $\alpha$  and Rev-erb $\beta$  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  $\alpha$  (c-erbA-1) gene. *Nucleic Acids Res.* 19: 1105-1112.
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- Kainu, T., Enmark, E., Gustafsson, J.A. and Pelto-Huikko, M.P. 1996. Localization of the Rev-ErbA orphan receptors in the brain. *Brain Res.* 743: 315-319.
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- Koh, Y.S. and Moore, D.D. 1999. Linkage of the nuclear hormone receptor genes NR1D2, THRB, and RARB: evidence for an ancient, large-scale duplication. *Genomics* 57: 289-292.

## CHROMOSOMAL LOCATION

Genetic locus: NR1D2 (human) mapping to 3p24.2; Nr1d2 (mouse) mapping to 14 A2.

## SOURCE

Rev-erb $\beta$  (M-73) is a rabbit polyclonal antibody raised against amino acids 195-267 mapping within an internal region of Rev-erb $\beta$  of mouse origin.

## PRODUCT

Each vial contains 200  $\mu$ 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-134545 X, 200  $\mu$ g/0.1 ml.

Blocking peptide available for competition studies, sc-134545 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4 $^{\circ}$  C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

Rev-erb $\beta$  (M-73) is recommended for detection of Rev-erb $\beta$  of mouse, rat and, to a lesser extent, human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for Rev-erb $\beta$  siRNA (h): sc-61456, Rev-erb $\beta$  siRNA (m): sc-61457, Rev-erb $\beta$  shRNA Plasmid (h): sc-61456-SH, Rev-erb $\beta$  shRNA Plasmid (m): sc-61457-SH, Rev-erb $\beta$  shRNA (h) Lentiviral Particles: sc-61456-V and Rev-erb $\beta$  shRNA (m) Lentiviral Particles: sc-61457-V.

Rev-erb $\beta$  (M-73) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

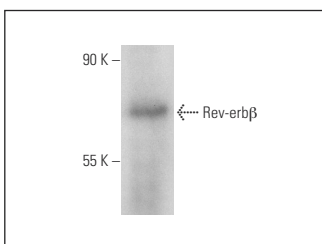
Molecular Weight of Rev-erb $\beta$ : 70 kDa.

Positive Controls: mouse liver extract: sc-2256.

## 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<sup>TM</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>TM</sup> 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<sup>TM</sup> Mounting Medium: sc-24941.

## DATAS



Rev-erb $\beta$  (M-73): sc-134545. Western blot analysis of Rev-erb $\beta$  expression in mouse liver tissue extract.

## RESEARCH USE

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

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Try **Rev-erb $\beta$  (D-8): sc-398252**, our highly recommended monoclonal alternative to Rev-erb $\beta$  (M-73).