

Rev-erb β (D-8): sc-398252

BACKGROUND

Orphan nuclear receptors NR1D1 and NR1D2 are more commonly designated Rev-erb α and 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.

CHROMOSOMAL LOCATION

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

SOURCE

Rev-erb β (D-8) is a mouse monoclonal antibody raised against amino acids 195-267 mapping within an internal region of Rev-erb β of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain 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-398252 X, 200 μ g/0.1 ml.

Rev-erb β (D-8) is available conjugated to agarose (sc-398252 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398252 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398252 PE), fluorescein (sc-398252 FITC), Alexa Fluor[®] 488 (sc-398252 AF488), Alexa Fluor[®] 546 (sc-398252 AF546), Alexa Fluor[®] 594 (sc-398252 AF594) or Alexa Fluor[®] 647 (sc-398252 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-398252 AF680) or Alexa Fluor[®] 790 (sc-398252 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

Rev-erb β (D-8) is recommended for detection of Rev-erb β of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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

Rev-erb β (D-8) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

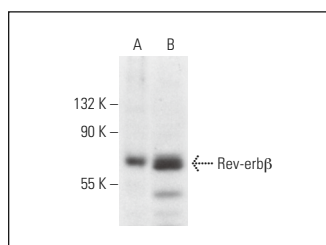
Molecular Weight of Rev-erb β : 70 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, MDA-MB-231 cell lysate: sc-2232 or EOC 20 whole cell lysate: sc-364187.

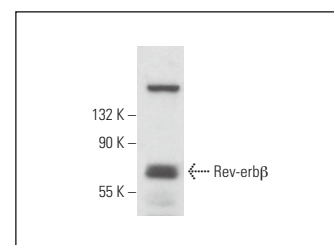
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



Rev-erb β (D-8): sc-398252. Western blot analysis of Rev-erb β expression in HeLa nuclear extract (A) and EOC 20 whole cell lysate (B).



Rev-erb β (D-8): sc-398252. Western blot analysis of Rev-erb β expression in MDA-MB-231 whole cell lysate.

SELECT PRODUCT CITATIONS

- Dyar, K.A., et al. 2018. Transcriptional programming of lipid and amino acid metabolism by the skeletal muscle circadian clock. *PLoS Biol.* 16: e2005886.
- Reitz, C.J., et al. 2019. SR9009 administered for one day after myocardial ischemia-reperfusion prevents heart failure in mice by targeting the cardiac inflammasome. *Commun. Biol.* 2: 353.
- Dierickx, P., et al. 2019. SR9009 has REV-ERB-independent effects on cell proliferation and metabolism. *Proc. Natl. Acad. Sci. USA* 116: 12147-12152.
- Sun, L., et al. 2021. Circadian clock genes REV-ERBs inhibits granulosa cells apoptosis by regulating mitochondrial biogenesis and autophagy in polycystic ovary syndrome. *Front. Cell Dev. Biol.* 9: 658112.
- Noh, S.G., et al. 2022. Regulation of circadian genes Nr1d1 and Nr1d2 in sex-different manners during liver aging. *Int. J. Mol. Sci.* 23: 10032.

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.

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