

ROR β (H-42): sc-292433

BACKGROUND

Nuclear receptors that lack a defined ligand are classified as orphan nuclear receptors. Retinoic acid receptor-related orphan nuclear receptor (ROR) proteins ROR α , ROR β and ROR γ are members of the nuclear hormone receptor superfamily. Unlike other members of the nuclear hormone receptor superfamily that bind DNA as homo- or heterodimers, ROR proteins directly bind the hormone response element (HRE) DNA sequence as monomers. ROR α has multiple isoforms that share common DNA- and putative ligand-binding domains, but differ in their amino-terminal domains, which are generated by alternative RNA processing. ROR β is primarily expressed in brain and other areas of the central nervous system that process sensory information. The expression levels of ROR β oscillate in the retina and pineal gland with a circadian rhythm. In Neuro2A cells, ROR β binds DNA and efficiently directs transcription. The gene encoding human ROR β maps to chromosome 9q21.3. ROR γ comprises a 560 amino acid protein that shares 50% amino acid identity with ROR α and is most highly expressed in skeletal muscle.

REFERENCES

- Hirose, T., et al. 1994. ROR γ : the third member of ROR/RZR orphan receptor subfamily that is highly expressed in skeletal muscle. *Biochem. Biophys. Res. Commun.* 205: 1976-1983.
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- Carlberg, C., et al. 1994. RZR α , a new family of retinoid-related orphan receptors that function as both monomers and homodimers. *Mol. Endocr.* 8: 757-770.
- Mangelsdorf, D.J., et al. 1995. The nuclear receptor superfamily: the second decade. *Cell* 83: 835-839.
- Andre, E., et al. 1998. Disruption of retinoid-related orphan receptor β changes circadian behavior, causes retinal degeneration and leads to vacillans phenotype in mice. *EMBO J.* 17: 3867-3877.
- Gawlas, K., et al. 2000. Differential binding and transcriptional behaviour of two highly related orphan receptors, ROR α and ROR γ . *Biochim. Biophys. Acta* 1494: 236-241.

CHROMOSOMAL LOCATION

Genetic locus: RORB (human) mapping to 9q21.13; Rorb (mouse) mapping to 19 B.

SOURCE

ROR β (H-42) is a rabbit polyclonal antibody raised against amino acids 241-282 mapping within an internal region of ROR β 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.

APPLICATIONS

ROR β (H-42) is recommended for detection of ROR β 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).

ROR β (H-42) is also recommended for detection of ROR β in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ROR β siRNA (h): sc-38872, ROR β siRNA (m): sc-38873, ROR β shRNA Plasmid (h): sc-38872-SH, ROR β shRNA Plasmid (m): sc-38873-SH, ROR β shRNA (h) Lentiviral Particles: sc-38872-V and ROR β shRNA (m) Lentiviral Particles: sc-38873-V.

Molecular Weight of ROR β : 52 kDa.

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.

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.


 MONOS
 Satisfation
 Guaranteed

Try **ROR β (4B4): sc-293471**, our highly recommended monoclonal alternative to ROR β (H-42).