SANTA CRUZ BIOTECHNOLOGY, INC.

RORγ (G-16): sc-26412

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The nuclear orphan receptors RORα and RORγ are members of the nuclear hormone receptor superfamily. This family acts by directly associating with DNA sequences known as hormone response elements (HREs) and typically bind DNA as either homo- or heterodimers. RORα and RORγ are unique in that they bind DNA as monomers. RORα 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. RORγ comprises a 560 amino acid protein that shares 50% amino acid identity with RORα and is most highly expressed in skeletal muscle. Although these proteins are considered "orphan receptors," due to a lack of defined ligands, experimental evidence has shown that melatonin may be the natural ligand for these nuclear receptors. The gene encoding RORα maps to chromosome 15q22.2 and the gene encoding RORγ maps to chromosome 1q21.3.

REFERENCES

1. Giguere, V., et al. 1994. Isoform-specific amino-terminal domains dictate DNA-binding properties of RORα, a novel family of orphan hormone nuclear receptors. Genes Dev. 8: 538-543.
2. Hirose, T., et al. 1994. RORγ: the third member of ROR/RZR orphan receptor subfamily that is highly expressed in skeletal muscle. Biochem. Biophys. Res. Commun. 205: 1976-1983.
3. Carlberg, C. and Wiesenberg, I. 1995. The orphan receptor family RZR/ROR, melatonin and 5-lipoxygenase: an unexpected relationship. J. Pineal Res. 18: 171-178.
4. Mangelsdorf, D.J., et al. 1995. The nuclear receptor superfamily: the second decade. Cell 83: 835-839.

CHROMOSOMAL LOCATION

Genetic locus: RORC (human) mapping to 1q21.3

SOURCE

RORγ (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RORγ of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-26412 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

RORγ (G-16) is recommended for detection of RORγ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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).

RORγ (G-16) is also recommended for detection of RORγ in additional species, including equine.

Suitable for use as control antibody for RORγ siRNA (h): sc-38880, RORγ shRNA Plasmid (h): sc-38880-SH and RORγ shRNA (h) Lentiviral Particles: sc-38880-V.

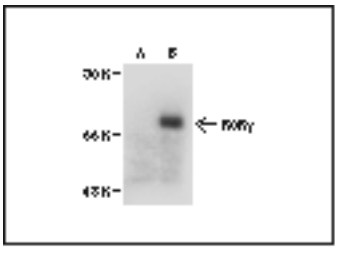
Molecular Weight of RORγ: 63 kDa.

Positive Controls: RORγ (h): 293T Lysate: sc-170801, U-937 nuclear extract: sc-2156 or A-673 nuclear extract: sc-2128.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **RORγ (D-4): sc-365476** or **RORγ (162C2a): sc-81371**, our highly recommended monoclonal alternatives to RORγ (G-16).