SANTA CRUZ BIOTECHNOLOGY, INC.

CAR1/2 (M-150): sc-50462

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The CAR "constitutively acting receptor" proteins, CAR1 and CAR2, are mouse nuclear hormone receptors. CAR1 and CAR2, along with their human homolog, MB67, are in highest expression in the liver and belong to a group of receptors known as orphan receptors due to their lack of a known ligand. Unlike conventional hormone receptors which activate transcription upon binding with steroids, retinoids, and thyroid hormones the CAR and MB67 orphan receptors are transcriptionally active in the absence of exogenous hormone. The CAR and MB67 orphan receptors bind to DNA in the form of a heterodimer with the retinoic-X receptor and activate gene transcription in a constituitive manner.

REFERENCES

1. Davies, P., et al. 1988. The structure and function of steroid receptors. Sci. Prog. 72: 563-578.
2. Baes, M., et al. 1994. A new orphan member of the nuclear hormone receptor superfamily that interacts with a subset of retinoic acid response elements. Mol. Cell. Biol. 14: 1544-1551.
3. Mangelsdorf, D.J., et al. 1995. The RXR heterodimers and orphan receptors. Cell 83: 841-850.
4. Choi, H.S., et al. 1997. Differential transactivation by two isoforms of the orphan nuclear hormone receptor CAR. J. Biol. Chem. 272: 23565-23571.
5. Frank, C., et al. 2003. Characterization of DNA complexes formed by the nuclear receptor constitutive androstane receptor. J. Biol. Chem. 278: 43299-43310.

CHROMOSOMAL LOCATION

Genetic locus: NR1I3 (human) mapping to 1q23.3; Nr1i3 (mouse) mapping to 1 H3.

SOURCE

CAR1/2 (M-150) is a rabbit polyclonal antibody raised against amino acids 48-197 mapping near the N-terminus of CAR1 of mouse origin.

PRODUCT

Each vial contains 200 µg 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

CAR1/2 (M-150) is recommended for detection of CAR1, CAR2 and MB67 of mouse, rat and 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).

Suitable for use as control antibody for MB67 siRNA (h): sc-39918, CAR1/2 siRNA (m): sc-43663, MB67 shRNA Plasmid (h): sc-39918-SH, CAR1/2 shRNA Plasmid (m): sc-43663-SH, MB67 shRNA (h) Lentiviral Particles: sc-39918-V and CAR1/2 shRNA (m) Lentiviral Particles: sc-43663-V.

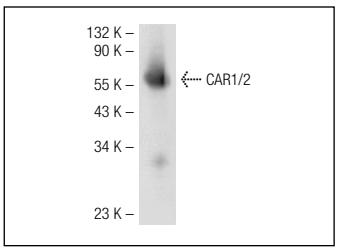
Molecular Weight of CAR1: 46 kDa.

Positive Controls: mouse liver extract: sc-2256, mouse brain extract: sc-2253 or c4 whole cell lysate: sc-364186.

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.

DATA



CAR1/2 (M-150): sc-50462. Western blot analysis of CAR1/2 expression in mouse liver tissue extract.

SELECT PRODUCT CITATIONS

1. Zhang, Y.K., et al. 2013. Expression of human CAR splicing variants in BAC-transgenic mice. Toxicol. Sci. 132: 142-150.