

MB67 (C-20): sc-8541

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 constitutive manner.

REFERENCES

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2. Baes, M., Gulick, T., Choi, H.S., Martinoli, M.G., Simha, D. and Moore, D.D. 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. and Evans, R.M. 1995. The RXR heterodimers and orphan receptors. *Cell* 83: 841-850.
4. Choi, H.S., Chung, M., Tzameli, I., Simha, D., Lee, Y.K., Seol, W. and Moore, D.D. 1997. Differential transactivation by two isoforms of the orphan nuclear hormone receptor CAR. *J. Biol. Chem.* 272: 23565-23571.
5. Forman, B.M., Tzameli, I., Choi, H.S., Chen, J., Simha, D., Seol, W., Evans, R.M. and Moore, D.D. 1998. Androstane metabolites bind to and deactivate the nuclear receptor CAR β . *Nature* 395: 612-615.

CHROMOSOMAL LOCATION

Genetic locus: NR1I3 (human) mapping to 1q23.3.

SOURCE

MB67 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of MB67 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.

Blocking peptide available for competition studies, sc-8541 P, (100 μ g 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

MB67 (C-20) is recommended for detection of MB67 of 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).

MB67 (C-20) is also recommended for detection of MB67 in additional species, including equine, canine, bovine and porcine.

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

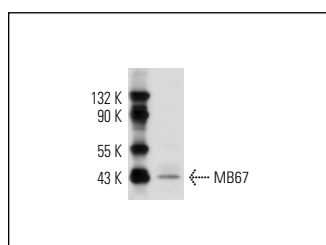
Molecular Weight of MB67: 40 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

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



MB67 (C-20): sc-8541. Western blot analysis of MB67 expression in HeLa nuclear extract.

SELECT PRODUCT CITATIONS

1. Chen, X., Zhang, J., Baker, S.M. and Chen, G. 2007. Human constitutive androstane receptor mediated methotrexate induction of human dehydro-epiandrosterone sulfotransferase (hSULT2A1). *Toxicology* 231: 224-233.

RESEARCH USE

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