

# MB67 (H-3): sc-518085

## 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

1. Davies, P. and Rushmere, N.K. 1988. The structure and function of steroid receptors. *Sci. Prog.* 72: 563-578.
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- $\beta$ . *Nature* 395: 612-615.

## CHROMOSOMAL LOCATION

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

## SOURCE

MB67 (H-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-26 at the N-terminus of MB67 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MB67 (H-3) is available conjugated to agarose (sc-518085 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-518085 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518085 PE), fluorescein (sc-518085 FITC), Alexa Fluor<sup>®</sup> 488 (sc-518085 AF488), Alexa Fluor<sup>®</sup> 546 (sc-518085 AF546), Alexa Fluor<sup>®</sup> 594 (sc-518085 AF594) or Alexa Fluor<sup>®</sup> 647 (sc-518085 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor<sup>®</sup> 680 (sc-518085 AF680) or Alexa Fluor<sup>®</sup> 790 (sc-518085 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

MB67 (H-3) is recommended for detection of MB67 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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 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.

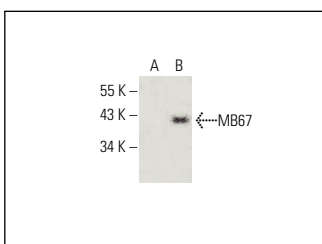
Positive Controls: MB67 (h): 293T Lysate: sc-370636.

## RECOMMENDED SUPPORT REAGENTS

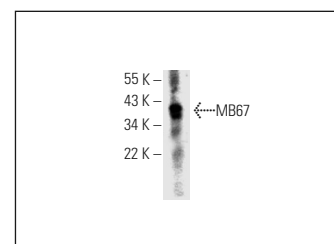
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, UltraCruz<sup>®</sup> 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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz<sup>®</sup> Mounting Medium: sc-24941 or UltraCruz<sup>®</sup> Hard-set Mounting Medium: sc-359850.

## DATA



MB67 (H-3): sc-518085. Western blot analysis of MB67 expression in non-transfected: sc-117752 (A) and human MB67 transfected: sc-370636 (B) 293T whole cell lysates. Detection reagent used: m-IgG $\kappa$  BP-HRP (Cruz Marker): sc-516102-CM.



MB67 (H-3): sc-518085. Western blot analysis of human recombinant MB67.

## 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](http://www.scbt.com) for detailed protocols and support products.