

# GPNMB (M-90): sc-99090

## BACKGROUND

Transmembrane glycoprotein NMB (GPNMB), also designated hematopoietic growth factor inducible neurokinin-1 (HGFIN), is a single-pass type I membrane protein. Belonging to the Pmel-17/NMB family of proteins, GPNMB acts as a melanogenic enzyme. GPNMB expression is not restricted to cells of melanocytic lineage and is highest in poorly metastatic melanoma cell lines. There is no expression of GPNMB in highly metastatic melanoma cell lines. GPNMB may play a important role in lymphohematopoietic stem cell maturation.

## REFERENCES

1. Anderson, M.G., et al. 2001. Mutations in genes encoding melanosomal proteins cause pigmentary glaucoma in DBA/2J mice. *Nat. Gen.* 30: 81-85.
2. Safadi, F.F., et al. 2001. Cloning and characterization of osteoactivin, a novel cDNA expressed in osteoblasts. *J. Cell. Biochem.* 84: 12-26.
3. Bächner, D., et al. 2003. mRNA expression of the murine glycoprotein (transmembrane) NMB (GPNMB) gene is linked to the developing retinal pigment epithelium and iris. *Brain Res. Gene Expr. Patterns* 1: 159-165.
4. Bandari, P.S., et al. 2003. Hematopoietic growth factor inducible neurokinin-1 type: a transmembrane protein that is similar to neurokinin-1 interacts with substance P. *Regul. Pept.* 111: 169-178.
5. Onaga, M., et al. 2003. Osteoactivin expressed during cirrhosis development in rats fed a choline-deficient, L-amino acid-defined diet, accelerates motility of hepatoma cells. *J. Hepatol.* 39: 779-785.
6. Haralanova-Ilieva, B., et al. 2005. Expression of osteoactivin in rat and human liver and isolated rat liver cells. *J. Hepatol.* 42: 565-572.
7. Metz, R.L., et al. 2005. Cloning and a cooperative role among p53 and cytokine-mediated transcription factors: relevance to cell cycle regulation. *Cell Cycle* 4: 315-322.

## CHROMOSOMAL LOCATION

Genetic locus: GPNMB (human) mapping to 7p15.3; Gpnmb (mouse) mapping to 6 B2.3.

## SOURCE

GPNMB (M-90) is a rabbit polyclonal antibody raised against amino acids 235-324 mapping within an internal region of GPNMB 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

GPNMB (M-90) is recommended for detection of GPNMB of mouse, rat and, to a lesser extent, 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).

GPNMB (M-90) is also recommended for detection of GPNMB in additional species, including equine.

Suitable for use as control antibody for GPNMB siRNA (h): sc-60721, GPNMB siRNA (m): sc-60722, GPNMB shRNA Plasmid (h): sc-60721-SH, GPNMB shRNA Plasmid (m): sc-60722-SH, GPNMB shRNA (h) Lentiviral Particles: sc-60721-V and GPNMB shRNA (m) Lentiviral Particles: sc-60722-V.

Molecular Weight of GPNMB: 64 kDa.

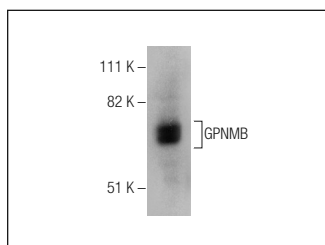
Molecular Weight of glycosylated GPNMB: 110-130 kDa.

Positive Controls: mouse liver extract: sc-2256.

## 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



GPNMB (M-90): sc-99090. Western blot analysis of GPNMB expression in mouse liver tissue extract.

## RESEARCH USE

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



Try **GPNMB (D-9): sc-271415** or **GPNMB (G-8): sc-271416**, our highly recommended monoclonal alternatives to GPNMB (M-90).