

# GPNMB (K-16): sc-47006

## 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 lympho-hematopoietic 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. Genet.* 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.* 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.

## CHROMOSOMAL LOCATION

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

## SOURCE

GPNMB (K-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GPNMB 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-47006 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## 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.

## APPLICATIONS

GPNMB (K-16) is recommended for detection of mature HGFIN and GPNMB precursor isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (K-16) is also recommended for detection of mature HGFIN and GPNMB precursor isoforms 1 and 2 in additional species, including canine, bovine and porcine.

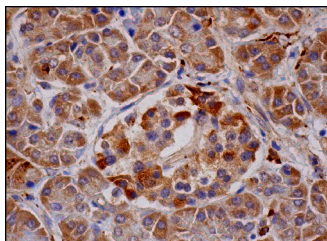
Suitable for use as control antibody for GPNMB siRNA (h): sc-60721, GPNMB siRNA (m): sc-60722, GPNMB shRNA Plasmid (h): sc-60721-SH, GPNMB shRNA Plasmid (m): sc-60722-SH, GPNMB shRNA (h) Lentiviral Particles: sc-60721-V and GPNMB shRNA (m) Lentiviral Particles: sc-60722-V.

Molecular Weight of GPNMB: 64 kDa.

Molecular Weight of glycosylated GPNMB: 110-130 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

## DATA



GPNMB (K-16): sc-47006. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of exocrine glandular cells and Islets of Langerhans.

## SELECT PRODUCT CITATIONS

1. Lee, J.E., et al. 2008. Identification of cell surface markers to differentiate rat endothelial and fibroblast cells using lectin arrays and LC-ESI-MS/MS. *Anal. Chem.* 80: 8269-8275.

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Try **GPNMB (D-9): sc-271415** or **GPNMB (G-8): sc-271416**, our highly recommended monoclonal alternatives to GPNMB (K-16).