SANTA CRUZ BIOTECHNOLOGY, INC.

NMBR (G-3): sc-374623

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The bombesin receptor family includes the gastrin-releasing peptide (GRPR) and neuromedin B (NMBR) receptors. both receptors are expressed in various brain regions and in the digestive tract. NMBR belongs to the G protein-coupled receptor 1 family. The gene encoding NMBR protein maps to chromosome 6q24.1. NMBR, an integral membrane protein, binds neuromedin B, a mitogen and growth factor for gastrointestinal epithelial tissue and normal and neoplastic lung.

REFERENCES

1. Siegfried, J.M., et al. 1999. Evidence for autocrine actions of neuromedin B and gastrin-releasing peptide in non-small cell lung cancer. Pulm. Pharmacol. Ther. 12: 291-302.
2. Sun, B., et al. 2000. The presence of receptors for bombesin/GRP and mRNA for three receptor subtypes in human ovarian epithelial cancers. Regul. Pept. 90: 77-84.
3. Shuttleworth, S.J., et al. 2004. Identification and optimization of novel partial agonists of neuromedin B receptor using parallel synthesis. Bioorg. Med. Chem. Lett. 14: 3037-3042.
4. Marvanová, M., et al. 2004. Identification of genes regulated by memantine and MK-801 in adult rat brain by cDNA microarray analysis. Neuropsychopharmacology 29: 1070-1079.
5. Shan, L., et al. 2004. Bombesin-like peptide receptor gene expression, regulation, and function in fetal murine lung. Am. J. Physiol. Lung Cell. Mol. Physiol. 286: L165-L173.

CHROMOSOMAL LOCATION

Genetic locus: NMBR (human) mapping to 6q24.1; Nmbr (mouse) mapping to 10 A2.

SOURCE

NMBR (G-3) is a mouse monoclonal antibody raised against amino acids 1-55 mapping at the N-terminus of NMBR of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NMBR (G-3) is available conjugated to agarose (sc-374623 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-374623 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374623 PE), fluorescein (sc-374623 FITC), Alexa Fluor® 488 (sc-374623 AF488), Alexa Fluor® 546 (sc-374623 AF546), Alexa Fluor® 594 (sc-374623 AF594) or Alexa Fluor® 647 (sc-374623 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374623 AF680) or Alexa Fluor® 790 (sc-374623 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

NMBR (G-3) is recommended for detection of NMBR of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 NMBR siRNA (h): sc-45362, NMBR siRNA (m): sc-45363, NMBR shRNA Plasmid (h): sc-45362-SH, NMBR shRNA Plasmid (m): sc-45363-SH, NMBR shRNA (h) Lentiviral Particles: sc-45362-V and NMBR shRNA (m) Lentiviral Particles: sc-45363-V.

Molecular Weight of glycosylated NMBR: 47-80 kDa.

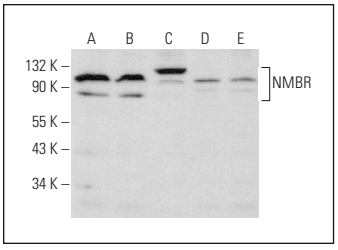
Molecular Weight of deglycosylated NMBR: 43 kDa.

Positive Controls: F9 cell lysate: sc-2245, Sol8 cell lysate: sc-2249 or L6 whole cell lysate: sc-364196.

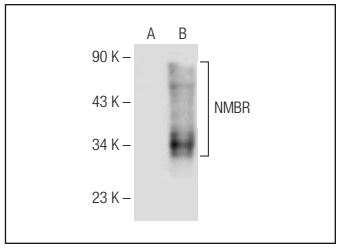
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



NMBR (G-3): sc-374623. Western blot analysis of NMBR expression in F9 (**A**), Sol8 (**B**), L6 (**C**), C2C12 (**D**) and c4 (**E**) whole cell lysates.



NMBR (G-3): sc-374623. Western blot analysis of NMBR expression in non-transfected (**A**) and human NMBR transfected (**B**) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Ma, Z., et al. 2020. Neuromedin B regulates steroidogenesis, cell viability and apoptosis in rabbit Leydig cells. Gen. Comp. Endocrinol. 288: 113371.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.