

NMUR2 (P-22): sc-133832

BACKGROUND

Neuromedin U is a neuropeptide with high activity on smooth muscle. It is widely expressed in gastrointestinal systems and central nervous system (CNS). Peripheral activities of neuromedin U include smooth muscle stimulation, ion transport alterations in the gut and the regulation of local blood flow and adrenocortical function. Neuromedin U receptors 1 and 2 (NMUR1 and NMUR2) are multi-pass membrane proteins that belong to the G-protein-coupled receptor 1 family of proteins. Both NMUR1 and NMUR2 act as receptors for the neuromedin U neuropeptide. NMUR1 is detected in peripheral organs, particularly in urogenital and gastrointestinal systems, with highest levels in testes. NMUR2 expression in CNS is low, but the protein has been detected in cerebellum, hippocampus, dorsal root ganglia and spinal cord. NMUR2 is predominantly detected in central nervous system with highest levels detected in medulla oblongata, spinal cord and thalamus. NMUR2 may also be detected in testes but has low levels of expression in peripheral tissues.

REFERENCES

1. Bhattacharyya, S., et al. 2004. Studies of the neuromedin U-2 receptor gene in human obesity: evidence for the existence of two ancestral forms of the receptor. *J. Endocrinol.* 183: 115-120.
2. Brighton, P.J., et al. 2004. Signaling and ligand binding by recombinant neuromedin U receptors: evidence for dual coupling to Galphaq/11 and Galphai and an irreversible ligand-receptor interaction. *Mol. Pharmacol.* 66: 1544-1556.
3. Aiyar, N., et al. Radioligand binding and functional characterization of recombinant human NmU1 and NmU2 receptors stably expressed in clonal human embryonic kidney-293 cells. *Pharmacology* 72: 33-41.
4. Gartlon, J., et al. 2004. Localisation of NMU1R and NMU2R in human and rat central nervous system and effects of neuromedin-U following central administration in rats. *Psychopharmacology* 177: 1-14.
5. Brighton, P.J., et al. 2004. Neuromedin U and its receptors: structure, function, and physiological roles. *Pharmacol. Rev.* 56: 231-248.
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CHROMOSOMAL LOCATION

Genetic locus: NMUR2 (human) mapping to 5q33.1.

SOURCE

NMUR2 (P-22) is a Protein A purified rabbit polyclonal antibody raised against synthetic NMUR2 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

RESEARCH USE

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

APPLICATIONS

NMUR2 (P-22) is recommended for detection of NMUR2 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NMUR2 siRNA (h): sc-61211, NMUR2 shRNA Plasmid (h): sc-61211-SH and NMUR2 shRNA (h) Lentiviral Particles: sc-61211-V.

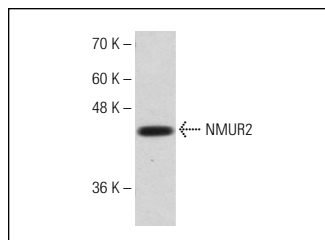
Molecular Weight of NMUR2: 48 kDa.

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

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.

DATA



NMUR2 (P-22): sc-133832. Western blot analysis of NMUR2 expression in Hep G2 whole cell lysate.

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 shipment products.