

NMUR1 (h): 293T Lysate: sc-116397

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. Its 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. It may also be detected in testes but has low levels of expression in peripheral tissues.

REFERENCES

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2. Brighton, P.J., et al. 2004. Signaling and ligand binding by recombinant neuromedin U receptors: evidence for dual coupling to $G_{\alpha q/11}$ and $G_{\alpha i}$ and an irreversible ligand-receptor interaction. *Mol. Pharmacol.* 66: 1544-1556.
3. Aiyar, N., et al. 2004. 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.
6. Qiu, D.L., et al. 2005. Neuromedin U receptor-2 mRNA and HCN channels mRNA expression in NMU-sensitive neurons in rat hypothalamic paraventricular nucleus. *Neurosci. Lett.* 374: 69-72.

CHROMOSOMAL LOCATION

Genetic locus: NMUR1 (human) mapping to 2q37.1.

PRODUCT

NMUR1 (h): 293T Lysate represents a lysate of human NMUR1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

NMUR1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive NMUR1 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.