IUPHAR/BPS Guide to Pharmacology CITE
https://doi.org/10.2218/gtopdb/F42/2023.1

Neuromedin U receptors in GtoPdb v.2023.1

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Abstract

Neuromedin U receptors (**provisional nomenclature as recommended by NC-IUPHAR [30]**) are activated by the endogenous 25 amino acid peptide neuromedin U (neuromedin U-25, NmU-25), a peptide originally isolated from pig spinal cord [92]. In humans, NmU-25 appears to be the sole product of a precursor gene (*NMU*, P48645) showing a broad tissue distribution, but which is expressed at highest levels in the upper gastrointestinal tract, CNS, bone marrow and fetal liver. Much shorter versions of NmU are found in some species, but not in human, and are derived at least in some instances from the proteolytic cleavage of the longer NmU. Despite species differences in NmU structure, the C-terminal region (particularly the C-terminal pentapeptide) is highly conserved and contains biological activity. Neuromedin S (neuromedin S-33) has also been identified as an endogenous agonist [97]. NmS-33 is, as its name suggests, a 33 amino-acid product of a precursor protein derived from a single gene and contains an amidated C-terminal heptapeptide identical to NmU. NmS-33 appears to activate NMU receptors with equivalent potency to NmU-25.

Contents

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