

Opioid receptors in GtoPdb v.2025.3

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Abstract

Opioid and opioid-like receptors are activated by a variety of endogenous peptides including [Met]enkephalin (met), [Leu]enkephalin (leu), β -endorphin (β -end), α -neodynorphin, dynorphin A (dynA), dynorphin B (dynB), big dynorphin (Big dyn), nociceptin/orphanin FQ (N/OFQ); endomorphin-1 and endomorphin-2 are also potential endogenous peptides. The Greek letter nomenclature for the opioid receptors, μ , δ and κ , is well established, and NC-IUPHAR considers this nomenclature appropriate, along with the symbols spelled out (mu, delta, and kappa), and the acronyms, MOP, DOP, and KOP [127, 103, 94]. However the acronyms MOR, DOR and KOR are still widely used in the literature. The human N/OFQ receptor, NOP, is considered 'opioid-related' rather than opioid because, while it exhibits a high degree of structural homology with the conventional opioid receptors [313, 94], it displays a distinct pharmacology. Currently there are numerous clinically used drugs, such as morphine and many other opioid analgesics, as well as antagonists such as naloxone. The majority of clinically used opiates are relatively selective μ agonists or partial agonists, though there are some μ/κ compounds, such as butorphanol, in clinical use. κ opioid agonists, such as the alkaloid nalfurafine and the peripherally acting peptide difelikefalin, are in clinical use for itch.

Contents

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κ receptor

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μ receptor

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NOP receptor

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