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Parathyroid hormone receptors in GtoPdb v.2023.1

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Abstract

The parathyroid hormone receptors (**nomenclature as agreed by the NC-IUPHAR Subcommittee on Parathyroid Hormone Receptors [50]**) are class B G protein-coupled receptors. The parathyroid hormone (PTH)/parathyroid hormone-related peptide (PTHrP) receptor (PTH1 receptor) is activated by precursor-derived peptides: PTH (84 amino acids), and PTHrP (141 amino-acids) and related peptides (PTH-(1-34), PTHrP-(1-36)). The parathyroid hormone 2 receptor (PTH2 receptor) is activated by the precursor-derived peptide TIP39 (39 amino acids). [^{125}I]PTH may be used to label both PTH1 and PTH2 receptors. The structure of a long-active PTH analogue (LA-PTH, an hybrid of PTH-(1-13) and PTHrP-(14-36)) bound to the PTH1 receptor-G_s complex has been resolved by cryo-electron microscopy [148]. Another structure of a PTH-(1-34) analog bound to a thermostabilized inactive PTH1 receptor has been obtained with X-ray crytallography [35].

Contents

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