

Bombesin receptors (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database

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Abstract

Mammalian bombesin (Bn) receptors comprise 3 subtypes: BB₁, BB₂, BB₃ (**nomenclature recommended by the NC-IUPHAR Subcommittee on bombesin receptors, [109]**). BB₁ and BB₂ are activated by the endogenous ligands [gastrin-releasing peptide](#) (GRP), [neuromedin B](#) (NMB) and [GRP-\(18-27\)](#). [bombesin](#) is a tetradecapeptide, originally derived from amphibians. The three Bn receptor subtypes couple primarily to the G_{q/11} and G_{12/13} family of G proteins [109]. Each of these receptors is widely distributed in the CNS and peripheral tissues [73, 109, 236, 265, 226, 348]. Activation of BB₁ and BB₂ receptors causes a wide range of physiological/pathophysiological actions, including the stimulation of normal and neoplastic tissue growth, smooth-muscle contraction, feeding behavior, secretion and many central nervous system effects including regulation of circadian rhythm and mediation of pruritus [112, 113, 109, 115, 116, 155, 189, 236]. A physiological role for the BB₃ receptor has yet to be fully defined although recently studies suggest an important role in glucose and insulin regulation, metabolic homeostasis, feeding, regulation of body temperature, obesity, diabetes mellitus and growth of normal/neoplastic tissues [73, 157, 203, 332].

Contents

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Database links

Bombesin receptors

<http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=9>

Introduction to Bombesin receptors

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BB₁ receptor

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BB₂ receptor

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=39>

BB₃ receptor

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=40>

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