Melanocortin receptors in GtoPdb v.2023.1

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Abstract

Melanocortin receptors (provisional nomenclature as recommended by NC-IUPHAR [41]) are activated by members of the melanocortin family (α-MSH, β-MSH and γ-MSH forms; δ form is not found in mammals) and adrenocorticotropic hormone (ACTH). Endogenous antagonists include agouti and agouti-related protein. ACTH(1-24) was approved by the US FDA as a diagnostic agent for adrenal function test. setmelanotide was approved by the US FDA for weight management in patients with POMC, PCSK1 or LEPR deficiency, bremelanotide was approved by the US FDA for generalized hypoactive sexual desire disorder in premenopausal women, and NDP-MSH (afamelanotide) was approved by the EMA for the treatment of erythropoietic protoporphyria. Several synthetic melanocortin receptor agonists are under clinical development.

Contents

This is a citation summary for Melanocortin receptors in the Guide to Pharmacology database (GtoPdb). It exists purely as an adjunct to the database to facilitate the recognition of citations to and from the database by citation analyzers. Readers will almost certainly want to visit the relevant sections of the database which are given here under database links.

GtoPdb is an expert-driven guide to pharmacological targets and the substances that act on them. GtoPdb is a reference work which is most usefully represented as an on-line database. As in any publication this work should be appropriately cited, and the papers it cites should also be recognized. This document provides a citation for the relevant parts of the database, and also provides a reference list for the research cited by those parts. For further details see [11].

Please note that the database version for the citations given in GtoPdb are to the most recent preceding version in which the family or its subfamilies and targets were substantially changed. The links below are to
the current version. If you need to consult the cited version, rather than the most recent version, please contact the GtoPdb curators.

Database links

**Melanocortin receptors**
https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=38

**Introduction to Melanocortin receptors**
https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=38

**Receptors**

- MC<sub>1</sub> receptor
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=282
- MC<sub>2</sub> receptor
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=283
- MC<sub>3</sub> receptor
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=284
- MC<sub>4</sub> receptor
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=285
- MC<sub>5</sub> receptor
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=286

References


microvascular endothelial cells express the melanocortin receptor type 1 and produce increased levels of IL-8 upon stimulation with alpha-melanocyte-stimulating hormone. J Immunol 159: 1930-7 [PMID:9257858]


