Thyrotropin-releasing hormone receptors in GtoPdb v.2023.1

Anthony P. Davenport¹, Marvin Gershengorn² and Rebecca Hills³

1. University of Cambridge, UK
2. National Institutes of Health, USA
3. University of Edinburgh, UK

Abstract

Thyrotropin-releasing hormone (TRH) receptors (provisional nomenclature as recommended by NC-IUPHAR [14]) are activated by the endogenous tripeptide TRH (pGlu-His-ProNH₂). TRH and TRH analogues fail to distinguish TRH₁ and TRH₂ receptors [29]. [³H]TRH (human, mouse, rat) is able to label both TRH₁ and TRH₂ receptors with Kᵢ values of 13 and 9 nM respectively. Synthesis and biology of ring-modified L-Histidine containing TRH analogues has been reported [23].

Contents

This is a citation summary for Thyrotropin-releasing hormone 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 [4].

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

Thyrotropin-releasing hormone receptors
https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=63
Introduction to Thyrotropin-releasing hormone receptors
https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=63
Receptors
TRH₁ receptor
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=363
TRH₂ receptor
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=754
References


32. Thirunarayanan N, Nir EA, Raaka BM and Gershengorn MC. (2013) Thyrotropin-releasing hormone receptor type 1 (TRH-R1), not TRH-R2, primarily mediates taltirelin actions in the CNS of mice. *Neuropsychopharmacology* **38**: 950-6 [PMID:23303050]

33. Thirunarayanan N, Raaka BM and Gershengorn MC. (2012) Taltirelin is a superagonist at the human thyrotropin-releasing hormone receptor. *Front Endocrinol (Lausanne)* **3**: 120 [PMID:23087672]


