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Type II receptor serine/threonine kinases in GtoPdb v.2025.3

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Abstract

Type II protein receptor serine/threonine kinases interact with transforming growth factor beta (TGFβ), bone morphogenic protein (BMP) or MÀllerian inhibiting substrate (MIS). Type II RSTKs then phosphorylate the kinase domain of their Type I RSTK partner - sometimes referred to as the signal propagating unit. This causes displacement of protein partners, such as the FKBP12 FK506-binding protein *FKBP1A* (P62942) and allowing the binding and phosphorylation of particular members of the Smad family.

Contents

This is a citation summary for Type II receptor serine/threonine kinases 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

Type II receptor serine/threonine kinases
https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=319

Receptors

- ActR2(activin A receptor type 2A)
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1791
- ActR2B(activin A receptor type 2B)
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1792
- MISR2(anti-Mullerian hormone receptor type 2)
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1793
- BMPR2(bone morphogenetic protein receptor type 2)
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1794
- TGFBR2(transforming growth factor beta receptor 2)
  https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1795

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