

## IL-12 receptor family in GtoPdb v.2025.3

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### Abstract

IL-12 receptors are a subfamily of the IL-6 receptor family. IL12RB1 is shared between receptors for IL-12 and IL-23; the functional agonist at IL-12 receptors is a heterodimer of IL-12A/IL-12B, while that for IL-23 receptors is a heterodimer of IL-12B/IL-23A.

### Contents

This is a citation summary for IL-12 receptor family 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 [3].

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

#### IL-12 receptor family

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=308>

##### Receptors

##### Complexes

##### [Interleukin-12 receptor](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2292>

##### [Interleukin-23 receptor](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2293>

##### Receptors and Subunits

##### [Interleukin-12 receptor, \$\beta\$ 1 subunit](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1715>

##### [Interleukin-12 receptor, \$\beta\$ 2 subunit](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1716>

##### [Interleukin 23 receptor](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1717>

### References

1. Altare F, Durandy A, Lammas D, Emile JF, Lamhamedi S, Le Deist F, Drysdale P, Jouanguy E, Döffinger R and Bernaudin F *et al.*. (1998) Impairment of mycobacterial immunity in human interleukin-12 receptor deficiency. *Science* **280**: 1432-5 [PMID:9603732]
2. Bloch Y, Bouchareychas L, Merceron R, Składanowska K, Van den Bossche L, Detry S, Govindarajan S, Elewaut D, Haerynck F and Dullaers M *et al.*. (2018) Structural Activation of Pro-inflammatory Human Cytokine IL-23 by Cognate IL-23 Receptor Enables Recruitment of the

Shared Receptor IL-12R $\beta$ 1. *Immunity* **48**: 45-58.e6 [PMID:29287995]

3. Buneman P, Christie G, Davies JA, Dimitrellou R, Harding SD, Pawson AJ, Sharman JL and Wu Y. (2020) Why data citation isn't working, and what to do about it *Database* **2020** [PMID:32367113]
4. Fourie A, Cheng X, Chang L, Greving C, Patrick A, Knight B, Polidari D, Patch R, Bhandari A and Liu D. (2023) 1109 First-in-class oral peptide systemically targeting the IL-23 pathway *Journal of Investigative Dermatology* **143**: S190
5. Lay CS, Bridges A, Goulding J, Briddon SJ, Soloviev Z, Craggs PD and Hill SJ. (2022) Probing the binding of interleukin-23 to individual receptor components and the IL-23 heteromeric receptor complex in living cells using NanoBRET. *Cell Chem Biol* **29**: 19-29.e6 [PMID:34038748]