

ZAC in GtoPdb v.2023.1

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Abstract

The zinc-activated channel (ZAC, **nomenclature as agreed by the NC-IUPHAR Subcommittee for the Zinc Activated Channel**) is a member of the Cys-loop family that includes the nicotinic ACh, 5-HT₃, GABA_A and strychnine-sensitive glycine receptors [2, 3, 5]. The channel is likely to exist as a homopentamer of 4TM subunits that form an intrinsic cation selective channel equipermeable to Na⁺, K⁺ and Cs⁺, but impermeable to Ca²⁺ and Mg²⁺ [5]. ZAC displays constitutive activity that can be blocked by tubocurarine, TTFB and high concentrations of Ca²⁺ [5]. Although denoted ZAC, the channel is more potently activated by H⁺ and Cu²⁺, with greater and lesser efficacy than Zn²⁺, respectively [5]. Orthologs of the human ZACN gene are present in a wide range of mammalian genomes, but notably not in the mouse or rat genomes. [2, 3].

Contents

This is a citation summary for ZAC 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 [1].

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

ZAC

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=83>

Introduction to ZAC

<https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=83>

Channels and Subunits

ZAC

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=587>

References

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