

SLC8 family of sodium/calcium exchangers (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database

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Abstract

The sodium/calcium exchangers (NCX) use the extracellular sodium concentration to facilitate the extrusion of calcium out of the cell. Alongside the plasma membrane Ca²⁺-ATPase (PMCA) and sarcoplasmic/endoplasmic reticulum Ca²⁺-ATPase (SERCA), as well as the sodium/potassium/calcium exchangers (NKCX, SLC24 family), NCX allow recovery of intracellular calcium back to basal levels after cellular stimulation. When intracellular sodium ion levels rise, for example, following depolarisation, these transporters can operate in the reverse direction to allow calcium influx and sodium efflux, as an electrogenic mechanism. Structural modelling suggests the presence of 9 TM segments, with a large intracellular loop between the fifth and sixth TM segments.

Contents

This is a citation summary for SLC8 family of sodium/calcium exchangers 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.

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

[SLC8 family of sodium/calcium exchangers](#)

<http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=180>

Transporters

[NCX1\(Sodium/calcium exchanger 1\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=945>

[NCX2\(Sodium/calcium exchanger 2\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=946>

NCX3(Sodium/calcium exchanger 3)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=947>

References

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