SLC54 Mitochondrial pyruvate carriers (version 2020.5) in the IUPHAR/BPS Guide to Pharmacology Database

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Abstract

Pyruvate is oxidized to acetyl-CoA by pyruvate dehydrogenase which is localized in the mitochondrial matrix. The mitochondrial pyruvate carrier (MPC) is a hetero-oligomer composed of SLC54 family members (MPC1 and MPC2). The MPC is expressed in the inner mitochondrial membrane and involved in the import of pyruvate into mitochondria [1, 5]. Ubiquitous disruption of either MPC1 or MPC2 expression results in embryonic lethality [7, 8]. Clinically relevant concentrations of the insulin sensitizers, thiazolidinediones, specifically inhibit the MPC [3].

Contents

This is a citation summary for SLC54 Mitochondrial pyruvate carriers 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

SLC54 Mitochondrial pyruvate carriers
https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=1006

Transporters

mitochondrial pyruvate carrier 1
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=3022
mitochondrial pyruvate carrier 2
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=3023
mitochondrial pyruvate carrier 1 like
https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=3024

References


