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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

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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

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