

SLC25 family of mitochondrial transporters in GtoPdb v.2025.3

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Abstract

Mitochondrial carriers are nuclear-encoded proteins, which translocate solutes across the inner mitochondrial membrane. Mitochondrial carriers are functional as monomers and have six TM alpha-helices and the termini in the mitochondrial intermembrane space.

Contents

This is a citation summary for SLC25 family of mitochondrial transporters 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 [2].

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

SLC25 family of mitochondrial transporters

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=147>

Mitochondrial di- and tri-carboxylic acid transporter subfamily

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=203>

Transporters

CIC(Mitochondrial citrate transporter)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1051>

DIC(Mitochondrial dicarboxylate transporter)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1052>

OGC(Mitochondrial oxoglutarate carrier)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1053>

ODC(Mitochondrial oxodicarboxylate carrier)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1057>

SLC25A34

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1085>

SLC25A35

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1086>

Mitochondrial amino acid transporter subfamily

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=204>

Transporters

aralar(AGC1)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1054>

citrin(AGC2)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1055>
GC1(Mitochondrial glutamate carrier 1)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1058>
GC2(Mitochondrial glutamate carrier 2)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1056>
ORC1(Mitochondrial ornithine transporter 1)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1060>
ORC2(Mitochondrial ornithine transporter 2)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1059>
CAC(Carnitine/acylcarnitine carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1076>
BAC(Basic amino acid carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1081>
BCAC(Branch chain amino acid carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1094>
SLC25A45
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1095>
solute carrier family 25 member 47
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2558>

Mitochondrial phosphate transporters

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=205>

Transporters

PHC(Mitochondrial phosphate carrier)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1061>

Mitochondrial nucleotide transporter subfamily

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=206>

Transporters

ANT1(Mitochondrial adenine nucleotide translocator 1)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1062>

ANT2(Mitochondrial adenine nucleotide translocator 2)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1063>

ANT3(Mitochondrial adenine nucleotide translocator 3)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1064>

ANT4(Mitochondrial adenine nucleotide translocator 4)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1065>

GDC(Graves disease carrier)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1071>

PMP34(Peroxisomal membrane protein)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1072>

APC1(Mitochondrial ATP-Mg/phosphate carrier 1)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1077>

APC2(Mitochondrial ATP-Mg/phosphate carrier 2)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1078>

APC3(Mitochondrial ATP-Mg/phosphate carrier 3)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1079>

APC4(Mitochondrial ATP-Mg/phosphate carrier 4)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1092>

PNC1(Mitochondrial pyrimidine nucleotide transporter 1)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1084>

PNC2(Mitochondrial pyrimidine nucleotide transporter 2)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1087>

SLC25A43

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1093>

Mitochondrial uncoupling proteins

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=207>

Transporters

UCP1(Uncoupling protein 1)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1066>

UCP2(Uncoupling protein 2)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1067>

UCP3(Uncoupling protein 3)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1068>

UCP4(Uncoupling protein 4)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1069>

UCP5(Uncoupling protein 5)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1070>

UCP6(Uncoupling protein 6)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1082>

Miscellaneous SLC25 mitochondrial transporters
<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=209>

Transporters

- mitochondrial carrier 1
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2554>
- mitochondrial carrier 2
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2555>
- solute carrier family 25 member 53
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2562>
- SLC25A46
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1096>
- Mitochondrial choline transporter
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2559>

SLC25 mitochondrial vitamin and co-factor carriers subfamily
<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=1118>

Transporters

- TPC(Thiamine pyrophosphate carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1073>
- PLPC(Pyridoxal 5'-phosphate carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1089>
- SAMC(S-Adenosylmethionine carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1074>
- FLXC(Folate carrier)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1083>
- NADT1(Mitochondrial nicotinamide adenine dinucleotide transporter 1)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2560>
- NADT2(Mitochondrial nicotinamide adenine dinucleotide transporter 2)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=2561>
- GSHC1(Mitochondrial glutathione transporter 1)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1090>
- Mitochondrial glutathione transporter 2
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1091>
- CoAT(Mitochondrial Coenzyme A transporter)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1075>

SLC25 mitochondrial iron transporters subfamily
<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=1119>

Transporters

- MFRN1(Mitochondrial iron transporter 1)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1088>
- MFRN2(Mitochondrial iron transporter 2)
<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1080>

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