

SLC27 family of fatty acid transporters in GtoPdb v.2023.1

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Abstract

Fatty acid transporter proteins (FATPs) are a family (SLC27) of six transporters (FATP1-6). They have at least one, and possibly six [6, 13], transmembrane segments, and are predicted on the basis of structural similarities to form dimers. SLC27 members have several structural domains: integral membrane associated domain, peripheral membrane associated domain, FATP signature, intracellular AMP binding motif, dimerization domain, lipocalin motif, and an ER localization domain (identified in FATP4 only) [4, 10, 11]. These transporters are unusual in that they appear to express intrinsic very long-chain acyl-CoA synthetase (EC 6.2.1.-, EC 6.2.1.7) enzyme activity. Within the cell, these transporters may associate with plasma and peroxisomal membranes. FATP1-4 and -6 transport long- and very long-chain fatty acids, while FATP5 transports long-chain fatty acids as well as bile acids [9, 13, 1].

Contents

This is a citation summary for SLC27 family of fatty acid 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 [3].

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

SLC27 family of fatty acid transporters

<https://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=214>

Transporters

[FATP1\(Fatty acid transport protein 1\)](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1108>

[FATP2\(Fatty acid transport protein 2\)](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1109>

[FATP3\(Fatty acid transport protein 3\)](#)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1110>

FATP4(Fatty acid transport protein 4)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1111>

FATP5(Fatty acid transport protein 5)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1112>

FATP6(Fatty acid transport protein 6)

<https://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1113>

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