SLC51 family of steroid-derived molecule transporters (version 2020.4) in the IUPHAR/BPS Guide to Pharmacology Database

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Abstract

The SLC51 organic solute transporter family of transporters is a pair of heterodimeric proteins which regulate bile salt movements in the small intestine, bile duct, and liver, as part of the enterohepatic circulation [2, 4, 1]. OSTα/OSTβ is also expressed in steroidogenic cells of the brain and adrenal gland, where it may contribute to steroid movement [5]. Bile acid transport is suggested to be facilitative and independent of sodium, potassium, chloride ions or protons [4, 2]. OSTα/OSTβ heterodimers have been shown to transport [3H]taurocholic acid, [3H]dehydroepiandrosterone sulphate, [3H]estriol-3-sulphate, [3H]pregnenolone sulphate and [3H]dehydroepiandrosterone sulphate [2, 4, 5]. OSTα/OSTβ-mediated transport of bile salts is inhibited by clofazimine [9]. OSTα is suggested to be a seven TM protein, while OSTβ is a single TM 'ancillary' protein, both of which are thought to have intracellular C-termini [7]. Both proteins function in solute transport [7, 3]. Inherited mutations in OSTα and OSTβ are associated liver disease and congenital diarrhea in children [8, 6].

Contents

This is a citation summary for SLC51 family of steroid-derived molecule 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.

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

SLC51 family of steroid-derived molecule transporters
http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=337

Transporters
OSTα (Organic solute transporter subunit α)
http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1915
OSTβ (Organic solute transporter subunit β)
http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1916

References


