

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]. OST α /OST β 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]. OST α /OST β heterodimers have been shown to transport [³H]taurocholic acid, [³H]dehydroepiandrosterone sulphate, [³H]estrone-3-sulphate, [³H]pregnenolone sulphate and [³H]dehydroepiandrosterone sulphate [2, 4, 5]. OST α /OST β -mediated transport of bile salts is inhibited by clofazimine [9]. OST α is suggested to be a seven TM protein, while OST β 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 OST α and OST β are associated liver disease and congenital diarrhea in children [8, 6].

Contents

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Database links

[SLC51 family of steroid-derived molecule transporters](#)

<http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=337>

Transporters

[OST \$\alpha\$ \(Organic solute transporter subunit \$\alpha\$ \)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=1915>

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