

## SLC15 family of peptide transporters (version 2019.4) in the IUPHAR/BPS Guide to Pharmacology Database

David T. Thwaites<sup>1</sup> and Tiziano Verri<sup>2</sup>

1. Newcastle University, UK
2. University of Salento, Italy

### Abstract

The Solute Carrier 15 (SLC15) family of peptide transporters, alias H<sup>+</sup>-coupled oligopeptide cotransporter family, is a group of membrane transporters known for their key role in the cellular uptake of di- and tripeptides (di/tripeptides). Of its members, SLC15A1 (PEPT1) chiefly mediates intestinal absorption of luminal di/tripeptides from overall dietary protein digestion, SLC15A2 (PEPT2) mainly allows renal tubular reuptake of di/tripeptides from ultrafiltration and brain-to-blood efflux of di/tripeptides in the choroid plexus, SLC15A3 (PHT2) and SLC15A4 (PHT1) interact with both di/tripeptides and histidine, e.g. in certain immune cells, and SLC15A5 has unknown physiological function. In addition, the SLC15 family of peptide transporters variably interacts with a very large number of peptidomimetics and peptide-like drugs. It is conceivable, based on the currently acknowledged structural and functional differences, to divide the SLC15 family of peptide transporters into two subfamilies.

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### Database links

[SLC15 family of peptide transporters](#)

<http://www.guidetopharmacology.org/GRAC/FamilyDisplayForward?familyId=187>

## Transporters

[PEPT1 \(Peptide transporter 1\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=984>

[PEPT2 \(Peptide transporter 2\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=985>

[PHT2 \(Peptide transporter 3\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=986>

[PHT1 \(Peptide transporter 4\)](#)

<http://www.guidetopharmacology.org/GRAC/ObjectDisplayForward?objectId=987>

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