HTR3 pentamers:5HT transport

Na+,K+,Ca2+

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Introduction

Reactome is open-source, open access, manually curated and peer-reviewed pathway database. Pathway annotations are authored by expert biologists, in collaboration with Reactome editorial staff and cross-referenced to many bioinformatics databases. A system of evidence tracking ensures that all assertions are backed up by the primary literature. Reactome is used by clinicians, geneticists, genomics researchers, and molecular biologists to interpret the results of high-throughput experimental studies, by bioinformaticians seeking to develop novel algorithms for mining knowledge from genomic studies, and by systems biologists building predictive models of normal and disease variant pathways.

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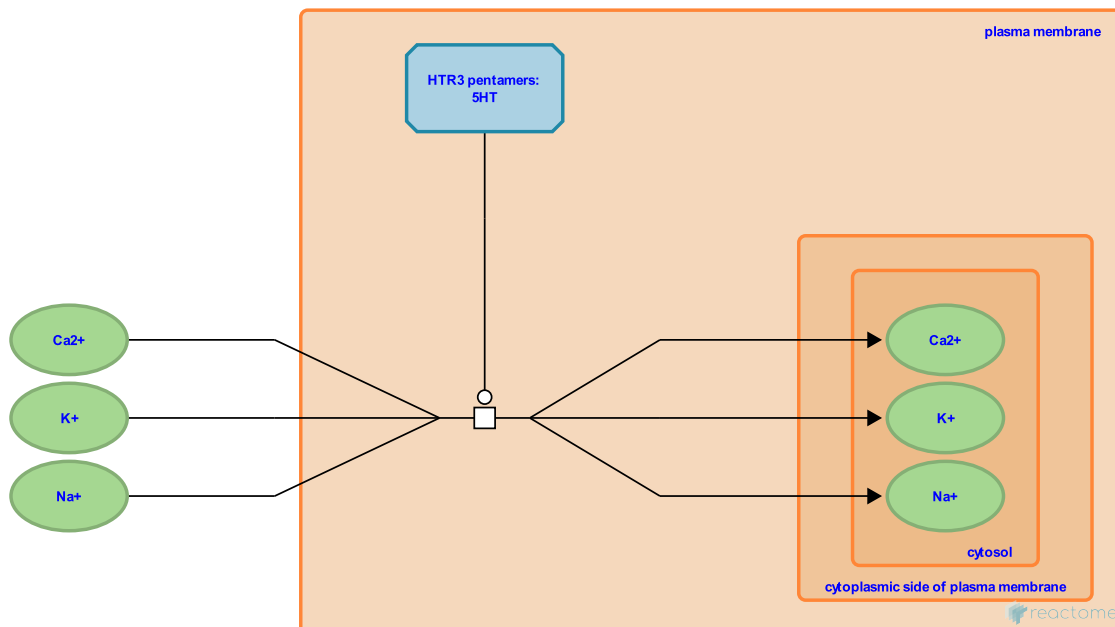
Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

HTR3 pentamers:5HT transport Na+,K+,Ca2+ ↗

Stable identifier: R-HSA-975311

Type: transition

Compartments: plasma membrane, cytosol, extracellular region

The 5-hydroxytryptamine receptor (HTR3) family are members of the superfamily of ligand-gated ion channels (LGICs). Five receptors (HTR3A-E) can form a homopentamer (HTR3A) or heteropentamers (HTR3A with B, C, D or E) (Barrera et al. 2005, Niesler et al. 2007; reviews - Barnes et al. 2009, Wu et al. 2015) Although heterpentamer composition can vary between the two receptors binding, the example 2xHTR3A:3xHTR3(B-E) is shown here. Binding of the neurotransmitter 5-hydroxytryptamine (5HT, serotonin) to the HTR3 complex opens the channel, which in turn, leads to an excitatory response in neurons and is permeable to sodium, potassium, and calcium ions (Miyake et al. 1995, Davies et al. 1999).

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Editions

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