Transport of connexons to the plasma membrane

Falk, MM., Gilleron, J., Matthews, L., Segretain, D.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

The contents of this document may be freely copied and distributed in any media, provided the authors, plus the institutions, are credited, as stated under the terms of Creative Commons Attribution 4.0 International (CC BY 4.0) License. For more information see our license.

11/05/2020
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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references


Reactome database release: 72

This document contains 2 pathways and 1 reaction (see Table of Contents)
Transport of connexons to the plasma membrane

Stable identifier: R-HSA-190872

Compartments: cytosol

Following connexon oligomerization, the hemichannels must be transported to the plasma membrane. This has been shown to occur in transport vesicles called "cargo containers". Most of post-Golgi cargo containers have a diameter of 50-200 nm (Lauf et al., 2002). Recently direct transport of connexins to GJ assembly sides has been described (Shaw et al., 2007). Besides microtubule-dependent trafficking, a microtubule-independent delivery pathway may exist as concluded from studies using the secretory transport inhibitor, Brefeldin A (Musil and Goodenough 1993; De Sousa et al. 1993; Laird et al. 1995).

Literature references


## Editions

<table>
<thead>
<tr>
<th>Date</th>
<th>Action</th>
<th>Author</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007-01-03</td>
<td>Authored</td>
<td>Gilleron, J., Segretain, D., Falk, MM.</td>
</tr>
<tr>
<td>2007-04-12</td>
<td>Edited</td>
<td>Matthews, L.</td>
</tr>
</tbody>
</table>
Microtubule-independent trafficking of connexons to the plasma membrane

Location: Transport of connexons to the plasma membrane

Stable identifier: R-HSA-451056