Gamma-secretase cleaves APP(672-770) to APP(672-711) and APP(672-713)

Jassal, B., Meras-Rios, A.
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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Literature references


Reactome database release: 71

This document contains 1 reaction (see Table of Contents)
Gamma-secretase cleaves APP(672-770) to APP(672-711) and APP(672-713)

Stable identifier: R-HSA-9010096

Type: transition

Compartments: endosome membrane, endosome lumen

Beta secretase 1 (BACE1) catalyses the cleavage of APP(18 770) within the ectodomain and liberates a soluble proteolytic fragment, termed soluble APP beta (APPs beta, APP(18 671)) (Parvathy et al. 1999, Kinoshita et al. 2003). APPs beta is subsequently cleaved by the presenilin (PS) containing gamma secretase complex to eventually (step wise details of multiple cleavages not shown here) liberate the neurotoxic Abeta peptides 42 and 40 (APP(672 713) and APP(672 711) respectively) (Huse et al. 2002, Ehehalt et al. 2003, Anderson et al. 2005, Fukumori et al. 2006, Takami et al. 2009, Andrew et al. 2016).

Literature references


Editions

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