MHC class II antigen internalization

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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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Literature references

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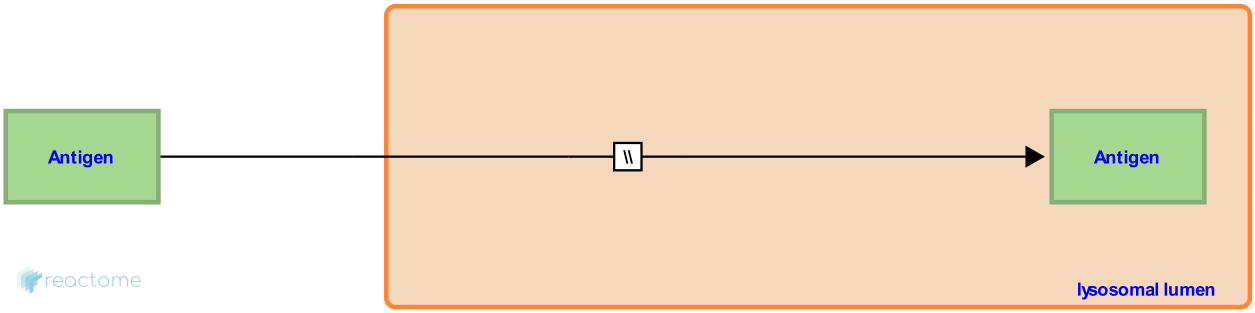
Stable identifier: R-HSA-2130627

Type: omitted

Compartments: extracellular region, lysosomal lumen



MHC II typically presents antigens derived from exogenous proteins internalized by APCs such as macrophages, B cells or dendritic cells. Different types of antigen use different routes of internalization. Endocytosis may be specific, mediated by a range of receptors expressed on APC, or may occur by nonspecific mechanisms such as phagocytosis, macropinocytosis or autophagy. Antigens are first loaded into endocytic vesicles and progress along the early endosomes (EE)-late endosomes (LE) lysosomal axis. Antigens are exposed to increasingly acidic, more denaturing and proteolytic conditions (Doherty & McMahon 2009, Underhill & Ozinsky 2002).

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Editions

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