Ficolin-3 binds to molecular patterns on the target cell surface

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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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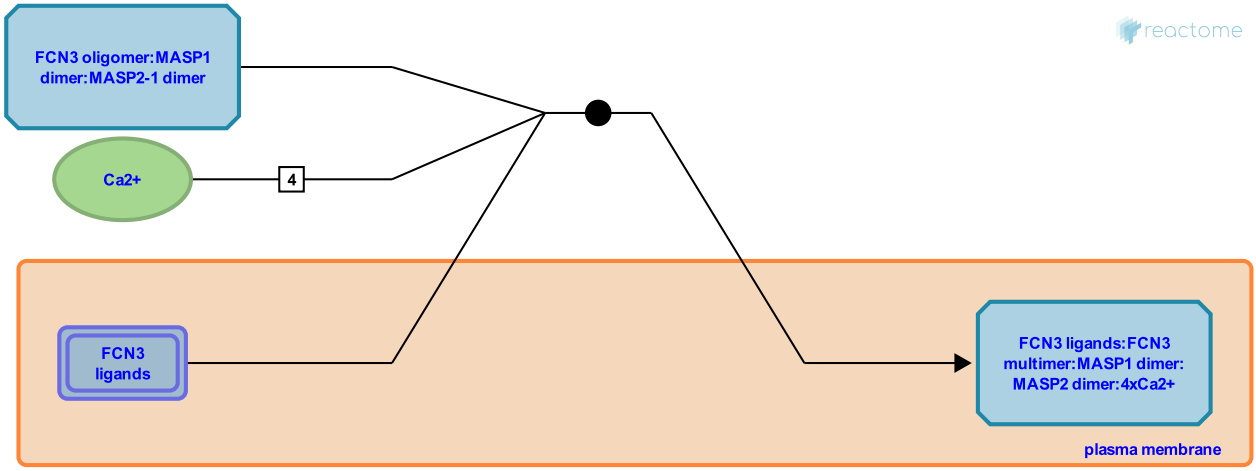
Stable identifier: R-HSA-2855077

Type: binding

Compartments: extracellular region, plasma membrane



Ficolin-3 (H-ficolin, FCN3, Hakata antigen) consists of a collagen-like strand and three C-terminal recognition domains, which bind to carbohydrates on the target surface. Circulating FCN3 is associated with mannan-binding lectin-associated serine proteases (MASP). Upon ligand binding the FCN3:MASP complex triggers activation of the lectin pathway (Matsushita et al. 2002, Teillet et al. 2008, Zacho et al. 2012). FCN3 can specifically recognize Aerococcus viridans (Tsujimura et al. 2002, Zacho et al. 2012) and binds patterns of bacterial polysaccharides such as d-fucose and galactose (Garlatti et al. 2007). In adition to pathogenic ligands, FCN3 was reported to bind apoptotic Jurkat cells (Kuraya et al. 2005).

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Editions

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