

oxLDL:CD36 binds TLR4:TLR6

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics*, 18, 142. [↗](#)

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics*, 33, 3461-3467. [↗](#)

Fabregat, A., Jupe, S., Matthews, L., Sidiropoulos, K., Gillespie, M., Garapati, P. et al. (2018). The Reactome Pathway Knowledgebase. *Nucleic Acids Res*, 46, D649-D655. [↗](#)

Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

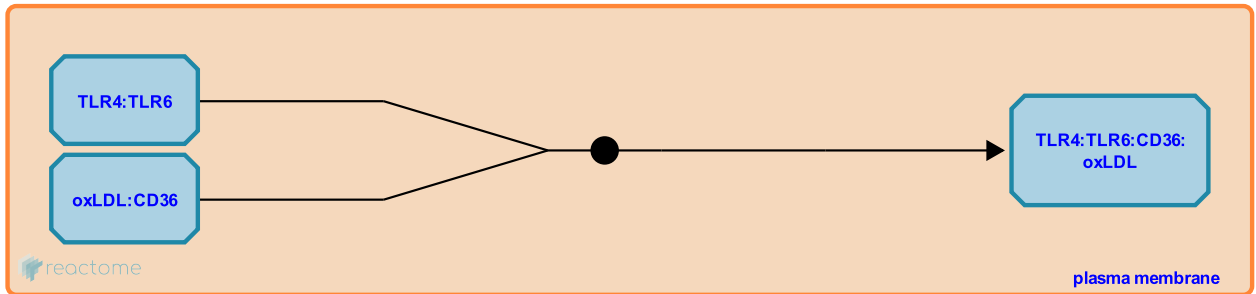
This document contains 1 reaction ([see Table of Contents](#))

oxLDL:CD36 binds TLR4:TLR6 ↗

Stable identifier: R-HSA-8869667

Type: binding

Compartments: plasma membrane



Oxidized low-density lipoprotein (oxLDL) and amyloid-beta sequestered by the scavenger receptor CD36 trigger sterile inflammatory signaling through a CD36:TLR4:TLR6 heteromerization (Stewart CR et al., 2010). The heterotrimeric CD36:TLR4:TLR6 signaling complex, acting via NFkappaB and reactive oxygen species, primes the NLRP3 inflammasome in response to oxLDL (Sheedy FJ et al., 2013).

Literature references

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El Khoury, J., Lacy-Hulbert, A., Boyer, L., van Gils, JM., Deng, J., Wilkinson, K. et al. (2010). CD36 ligands promote sterile inflammation through assembly of a Toll-like receptor 4 and 6 heterodimer. *Nat. Immunol.*, 11, 155-61. ↗

Editions

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|------------|----------|--------------------------|
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