

Viral dsRNA:TLR3 recruits TRIF (TICAM1)

Fitzgerald, KA., Gay, NJ., Luo, F., Shamovsky, V.

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

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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

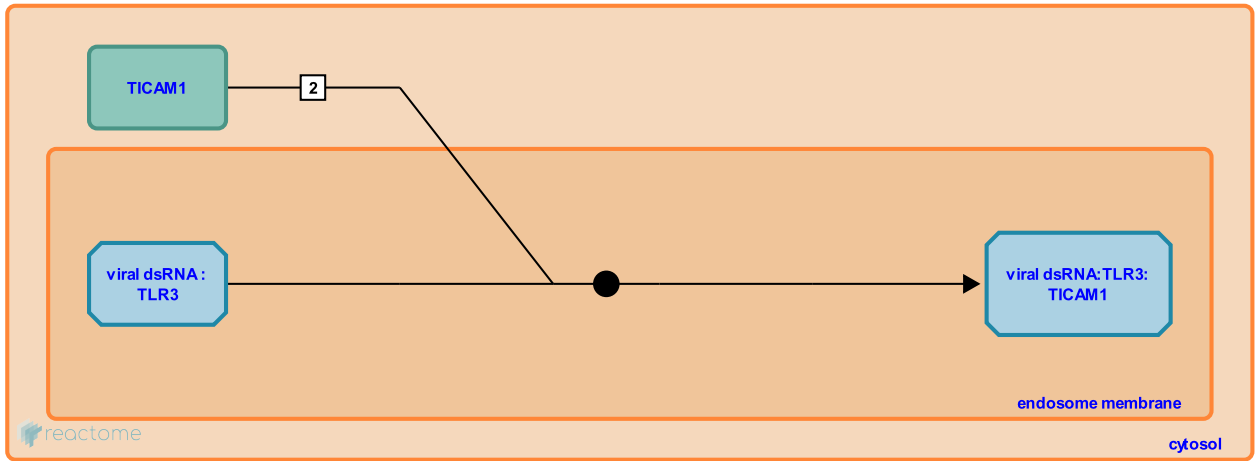
This document contains 1 reaction ([see Table of Contents](#))

Viral dsRNA:TLR3 recruits TRIF (TICAM1) [↗](#)

Stable identifier: R-HSA-168929

Type: binding

Compartments: endosome membrane, cytosol



TIR-domain-containing adaptor inducing interferon-beta (TRIF or TICAM1) was shown to play an essential role in TLR3 signaling. All poly(I:C)-induced pathways leading to NFkB and IRF3 activation were abolished in TRIF-/- mice [Yamamoto et al. 2003].

Literature references

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Fitzgerald, KA., Rowe, DC., Latz, E., Barnes, BJ., Golenbock, DT., Pitha-Rowe, PM. et al. (2003). LPS-TLR4 signaling to IRF-3/7 and NF-kappaB involves the toll adapters. *J Exp Med*, 198, 1043-55. [↗](#)

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Editions

2005-11-10	Authored	Luo, F.
2006-04-24	Reviewed	Gay, NJ.
2009-09-29	Revised	Shamovsky, V.
2009-12-16	Edited	Shamovsky, V.
2012-11-13	Reviewed	Fitzgerald, KA.