

# LA,TNFSF14 binds LTBR

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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. [↗](#)

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Reactome database release: 88

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

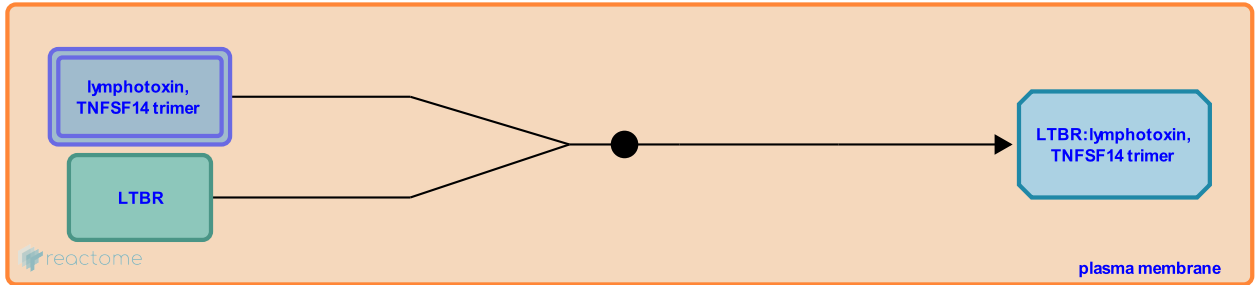
**LA,TNFSF14 binds LTBR**

**Stable identifier:** R-HSA-5668789

**Type:** binding

**Compartments:** plasma membrane

**Inferred from:** Ltbr binds lymphotoxin and Tnfsf14 (Mus musculus)



Lymphotoxin-beta receptor (LTBR or TNFR3) is a tumor necrosis factor receptor superfamily (TNFRSF) member that is expressed in lymphoid stromal and epithelial cells and binds two members of the TNFSF, the lymphotoxin alpha/beta (LTA/B) heterotrimers, as well as homotrimeric TNFSF14 (LIGHT) (Rooney et al. 2000, Aggarwal 2003). Both ligands are cytokines produced by activated lymphocytes that plays an important role in the inflammatory and immunologic response. LTA is a product of stimulated T cells and can help elicit cytotoxic effects on cancer cells (Stopfer et al. 2004, Crowe et al. 1994, Mauri et al. 1998, Ware et al. 1992). LTBR (TNFR3) signalling mediates responses controlling cellular differentiation, development and maintenance of peripheral lymphoid organs, dendritic cell homeostasis, hepatic regeneration, interferon responses to pathogens, and death of mucosal derived carcinomas (Norris & Ware 2007, Schneider et al. 2004).

**Editions**

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