

# RUNX3:CBFB binds the RORC gene promoter

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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](#))

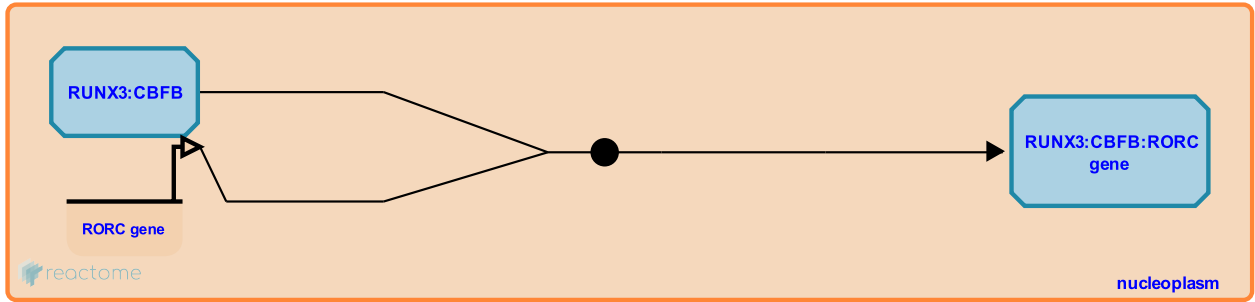
# RUNX3:CBFB binds the RORC gene promoter ↗

**Stable identifier:** R-HSA-8949276

**Type:** binding

**Compartments:** nucleoplasm

**Inferred from:** [Runx3:Cbfb binds the Rorc gene promoter \(Mus musculus\)](#)



Based on studies in mice, the complex of RUNX3 and CBFB binds the promoter of the RORC (RORgamma) gene, encoding nuclear retinoid-related orphan receptor-gamma. The RUNX binding site TGTGGT is conserved between mouse and human RORC promoters. Mouse Runx3 is expressed in innate lymphoid cell lineages ILC1 and ILC3, but not ILC2 (Ebihara et al. 2015).

## Literature references

Stappenbeck, TS., Yang, L., Egawa, T., Yokoyama, WM., Ebihara, T., Groner, Y. et al. (2015). Runx3 specifies lineage commitment of innate lymphoid cells. *Nat. Immunol.*, 16, 1124-33. ↗

## Editions

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