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

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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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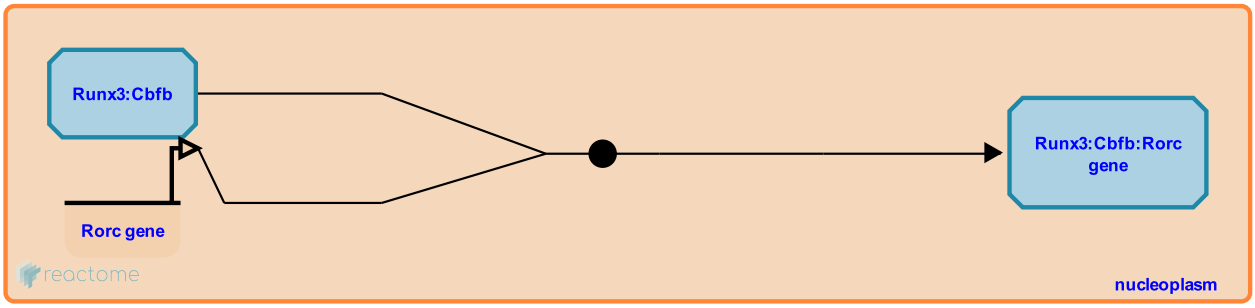
Stable identifier: R-MMU-8949284

Type: binding

Compartments: nucleoplasm



Mouse Runx3, in complex with its heterodimerization partner Cbfb, binds the promoter of the Rorc (Ror-gamma) gene, encoding nuclear retinoid-related orphan receptor-gamma. The Runx binding site in the mouse Rorc promoter, TGTGGT, is conserved in the human RORC promoter. Human RUNX3 protein can also bind the mouse Rorc promoter. Mouse Runx3 is expressed in innate lymphoid cell lineages ILC1 and ILC3, but not ILC2 (Ebihara et al. 2015).

Literature references

Ebihara, T., Song, C., Ryu, SH., Plougastel-Douglas, B., Yang, L., Levanon, D. et al. (2015). Runx3 specifies lineage commitment of innate lymphoid cells. *Nat. Immunol., 16*, 1124-33. ↗

Editions

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