

# CEBPB and phospho-STAT3 bind the promoter of the MYC gene

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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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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](#))

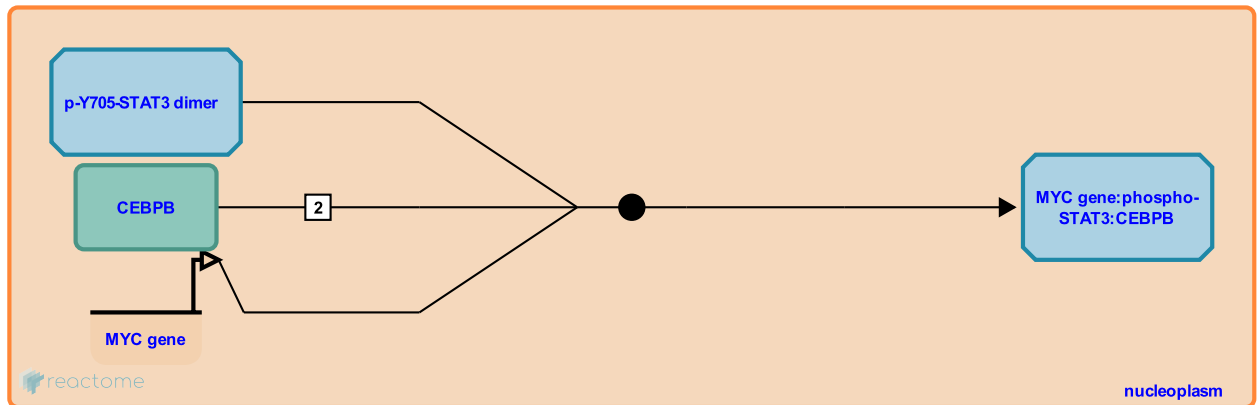
## CEBPB and phospho-STAT3 bind the promoter of the MYC gene ↗

**Stable identifier:** R-HSA-9618584

**Type:** binding

**Compartments:** nucleoplasm

**Inferred from:** [Cebpb and phospho-Stat3 bind the promoter of the Myc gene \(Mus musculus\)](#)



Activated (phosphorylated) STAT3 activates transcription of CEBPB and both phospho-STAT3 and CEBPB bind the promoter of the MYC gene (inferred from mouse homologs). The expression of MYC enhances proliferation of myeloid progenitors during emergency granulopoiesis in response to bacterial infection.

### Editions

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