Activated CEBPB and NFKB complex bind IL6 promoter

D'Eustachio, P., Matthews, L., Orlic-Milacic, M., Samarajiwa, S., Vegi, NM.
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


Reactome database release: 78

This document contains 1 reaction (see Table of Contents)

https://reactome.org
Activated CEBPB and NFKB complex bind IL6 promoter

Stable identifier: R-HSA-3857305

Type: binding

Compartments: nucleoplasm

RSK6A1/2/3-mediated phosphorylation of CEBPB downstream of activated RAS stimulates CEBPB homodimerization and DNA binding (Lee, Shuman et al. 2010) and, specifically, RAS-induced CEBPB activation stimulates CEBPB binding to the IL6 promoter (Kuilman et al. 2008; Lee, Shuman et al. 2010). RAS-activated CEBPB is able to recruit additional transcription activators, such as EP300, to the IL6 promoter (Lee, Miller et al. 2010). NFKB transcription complex, activated by interleukin-1-alpha (IL1A) signaling (Jimi et al. 1996, Hartupee et al. 2008, Orjalo et al. 2009), also binds the promoter of the IL6 gene (Shimizu et al. 1990, Libermann and Baltimore 1990) and cooperates with CEBPB in the activation of IL6 transcription (Matsusaka et al. 1993).

Literature references


Editions

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