

Phosphorylated PER binds to CLK

Edery, I., Williams, MG.

European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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02/05/2024

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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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Reactome database release: 88

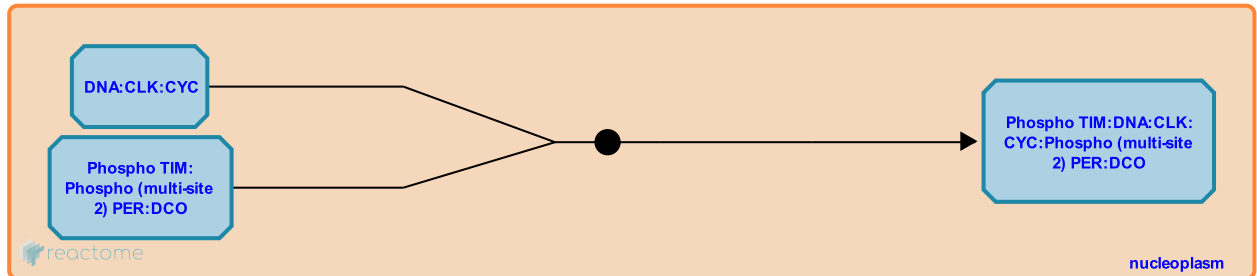
This document contains 1 reaction ([see Table of Contents](#))

Phosphorylated PER binds to CLK [↗](#)

Stable identifier: R-DME-538904

Type: binding

Compartments: nucleoplasm



After Timeless (TIM) and Period (PER) reform their heterodimer, PER binds to the E-box bound Clock (CLK) protein. Transcription of the *per*, *tim*, *vri*, and *Pdp1* target genes is now deactivated. It appears that PER directly binds to CLK, whereas itself and TIM do not bind to Cycle (CYC). PER binding to CLK is in itself not sufficient for inhibition.

Literature references

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Editions

2010-03-08	Authored	Williams, MG.
2010-07-06	Reviewed	Edery, I.
2014-05-20	Edited	Williams, MG.