Bmal1:Clock,Npas2 heterodimer is phosphorylated and translocates to the nucleus

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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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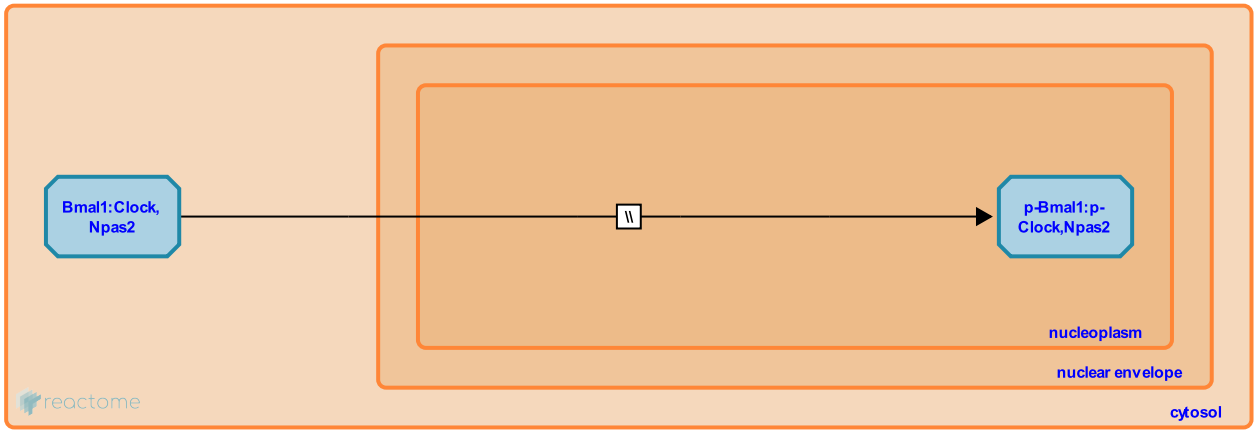
Stable identifier: R-MMU-508656

Type: omitted

Compartments: nucleoplasm, cytosol



Bmal1 (Arntl), Clock, and Npas2 are phosphorylated by unknown kinases. The phosphorylation is dependent on the heterodimerization of Bmal1 with Clock or Npas2. Phosphorylated Bmal1:Clock/Npas2 is a much stronger transactivator of gene expression than is unphosphorylated Bmal1:Clock/Npas2.

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