Phosphorylation of E47 by p38 MAPK

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24/11/2020

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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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. ↗

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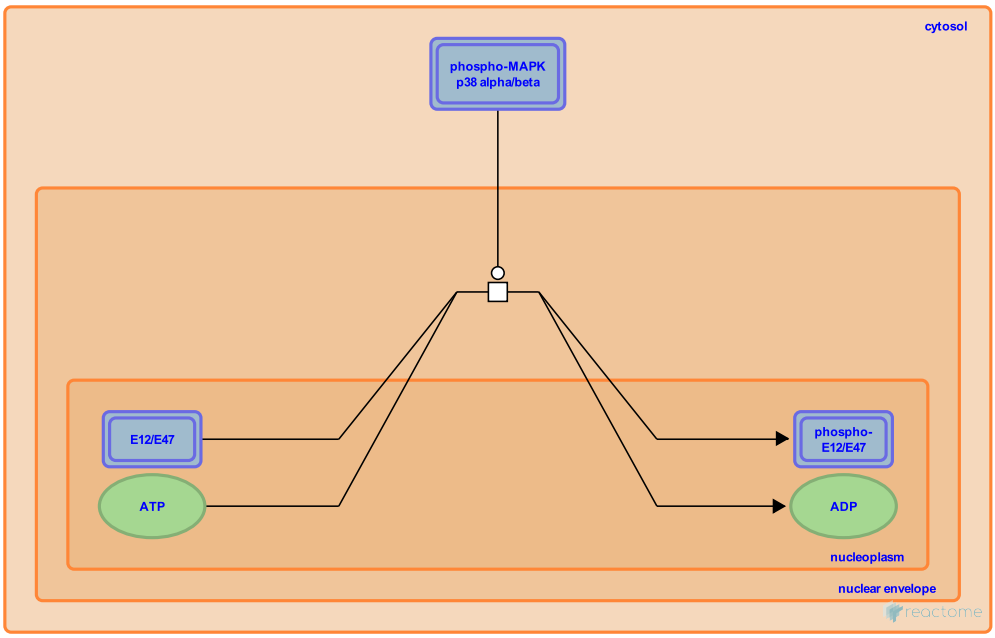
Stable identifier: R-MMU-448953

Type: transition

Compartments: nuclear envelope



p38 MAPK plays a fundamental role in the transition of myoblasts to different myocytes. Activated p38 MAPK phosphorylates E12/E47, a member of the E protein subfamily of bHLH proteins. p38 MAPK in particular phosphorylates Ser140 of E47. Its been observed that phosphorylation of E47 improves its ability to form heterodimers with Myod transcription factor.

Literature references

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Editions

2008-08-11	Authored, Edited	Garapati, P V.
2010-02-09	Reviewed	Krauss, RS.