

FYN phosphorylates PAK2

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https://reactome.org

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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- Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph data-base: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968.

Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

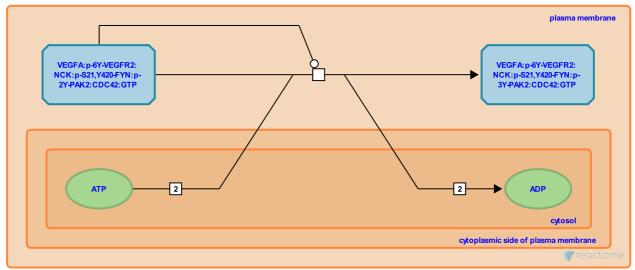
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FYN phosphorylates PAK2 >

Stable identifier: R-HSA-5218812

Type: transition

Compartments: plasma membrane, cytosol



PAK2 activity via GTPases can be strongly potentiated by concurrent stimulation of cellular tyrosine kinase activity. FYN may be involved in this potentiation by phosphorylating Y130 in the N-terminal regulatory domain leading to a robust enhancement of the catalytic activity of PAK2 (Renkema et al. 2002).

Literature references

Pulkkinen, K., Renkema, GH., Saksela, K. (2002). Cdc42/Rac1-mediated activation primes PAK2 for superactivation by tyrosine phosphorylation. *Mol. Cell. Biol.*, 22, 6719-25.

Houle, F., Huot, J., Lamalice, L. (2006). Phosphorylation of Tyr1214 within VEGFR-2 triggers the recruitment of Nck and activation of Fyn leading to SAPK2/p38 activation and endothelial cell migration in response to VEGF. *J. Biol. Chem.*, 281, 34009-20.

Editions

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