GPVI stimulates PI3K beta, gamma

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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

Fabregat, A., Sidiropoulos, K., Viteri, G., Forner, O., Marin-Garcia, P., Arnau, V. et al. (2017). Reactome pathway analysis: a high-performance in-memory approach. *BMC bioinformatics, 18*, 142. ↗

Sidiropoulos, K., Viteri, G., Sevilla, C., Jupe, S., Webber, M., Orlic-Milacic, M. et al. (2017). Reactome enhanced pathway visualization. *Bioinformatics, 33*, 3461-3467. ↗

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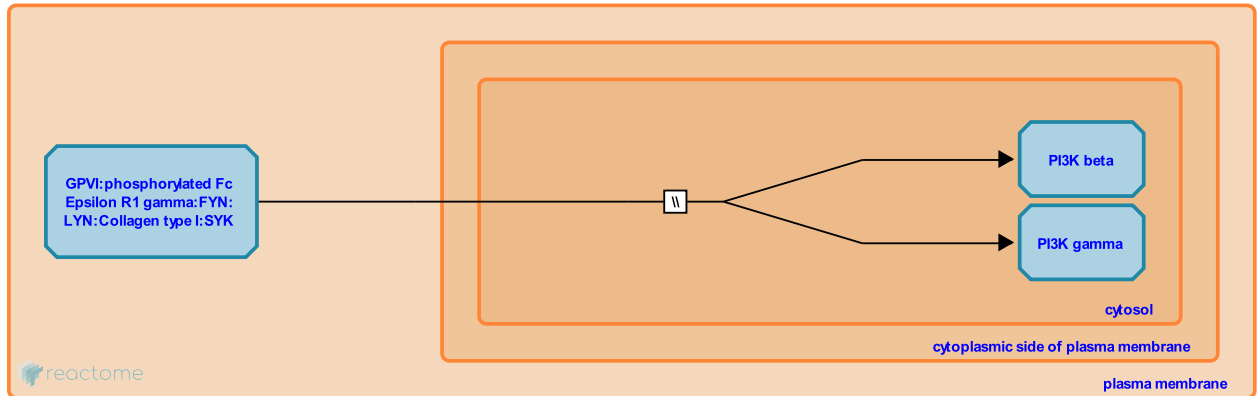
Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

GPVI stimulates PI3K beta, gamma ↗

Stable identifier: R-HSA-437118

Type: omitted

Compartments: cytosol

GPVI downstream signaling involves PI3K. Mouse knockouts of PI3Kbeta/PI3Kgamma suggest that though both isoforms are required for a full platelet response, only beta is absolutely required for Akt phosphorylation, Rap1 activation, and platelet aggregation downstream. The pathway connecting GPVI to PI3K is unclear. Two possible routes are suggested by interactions of the PI3K p85 regulatory subunit with LAT and with peptides representing the ITAM motif of Fc Epsilon R1 gamma.

Literature references

Kim, S., Jackson, SP., Lillian, R., Dangelmaier, C., Mangin, P., Kunapuli, SP. et al. (2009). The role of PI 3-K{beta} in glycoprotein VI-mediated akt activation in platelets. *J Biol Chem*. ↗

Editions

2009-09-04	Authored	Akkerman, JW.
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