SCF-FBXL18 ubiquitinates FBXL7

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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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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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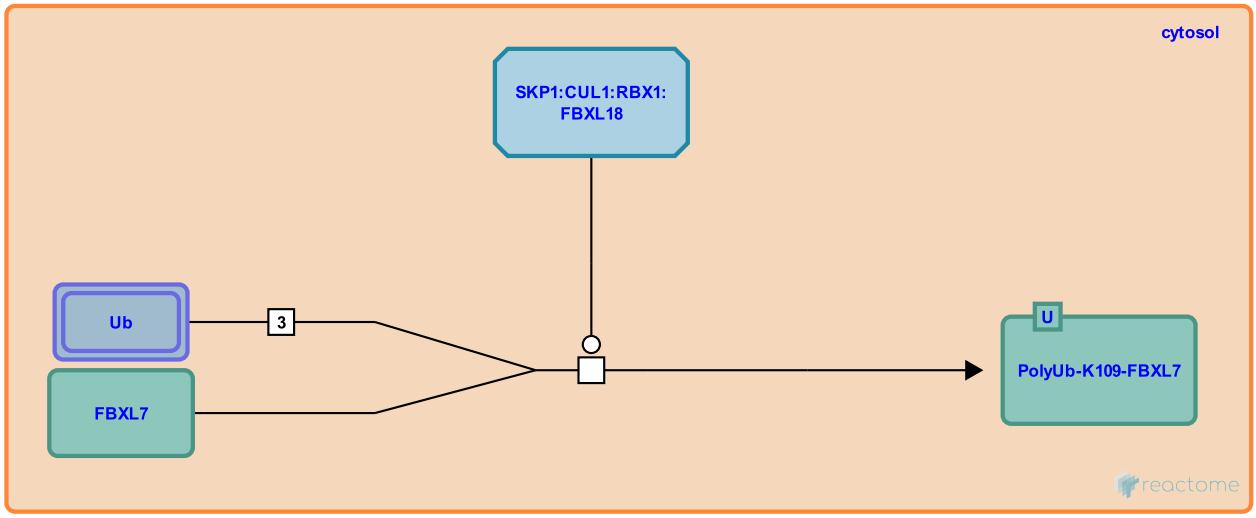
Stable identifier: R-HSA-8854051

Type: transition

Compartments: cytosol



FBXL18, a substrate recognition subunit of the SCF E3 ubiquitin ligase complex can bind to the FQ motif of FBXL7. The E3 ubiquitin ligase complex SCF-FBXL18 (SKP1:CUL1:RBX1:FBXL18) polyubiquitinates FBXL7 on lysine residue K109, targeting it for proteasome-mediated degradation (Liu et al. 2015).

Literature references

Liu, Y., Lear, T., Zhao, Y., Zhao, J., Zou, C., Chen, BB. et al. (2015). F-box protein Fbxl18 mediates polyubiquitylation and proteasomal degradation of the pro-apoptotic SCF subunit Fbxl7. *Cell Death Dis, 6*, e1630. ↗

Editions

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