Cbl binds B-cell linker protein

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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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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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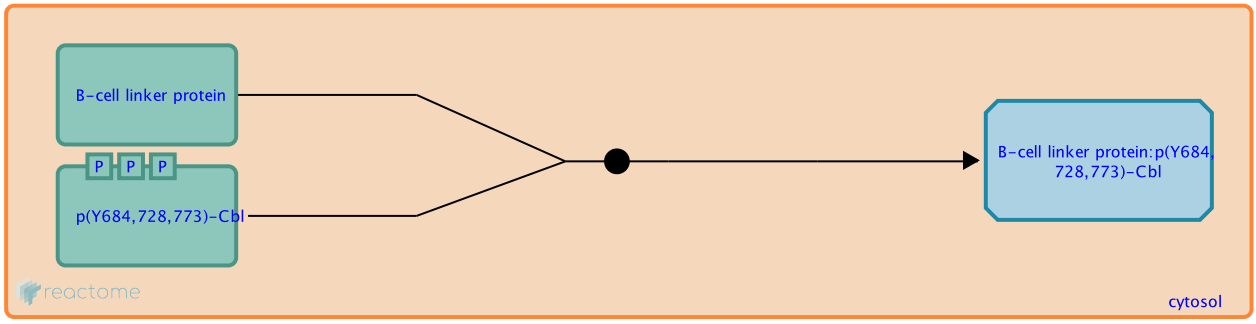
Stable identifier: R-GGA-912730

Type: binding

Compartments: cytosol



Cbl binds B-cell linker protein, a molecular scaffold bridging Syk to downstream signaling pathways by recruiting signaling molecules, such as Btk, phospholipase C gamma 2, Vav, and Grb2 to the cell membrane to form a signalosome complex. Cbl is believed to negatively regulate signaling from this complex. Consistent with this, Cbl inactivation reverses a number of critical defects in early B cell differentiation seen in BLNK-deficient mice (Song et al. 2007).

Literature references

Yasuda, T., Maeda, A., Kurosaki, M., Tezuka, T., Hironaka, K., Yamamoto, T. et al. (2000). Cbl suppresses B cell receptor-mediated phospholipase C (PLC)-gamma2 activation by regulating B cell linker protein-PLC-gamma2 binding. *J Exp Med, 191*, 641-50. ↗

Editions

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