

# CBL binds and ubiquitinates phosphorylated Sprouty

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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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Reactome database release: 88

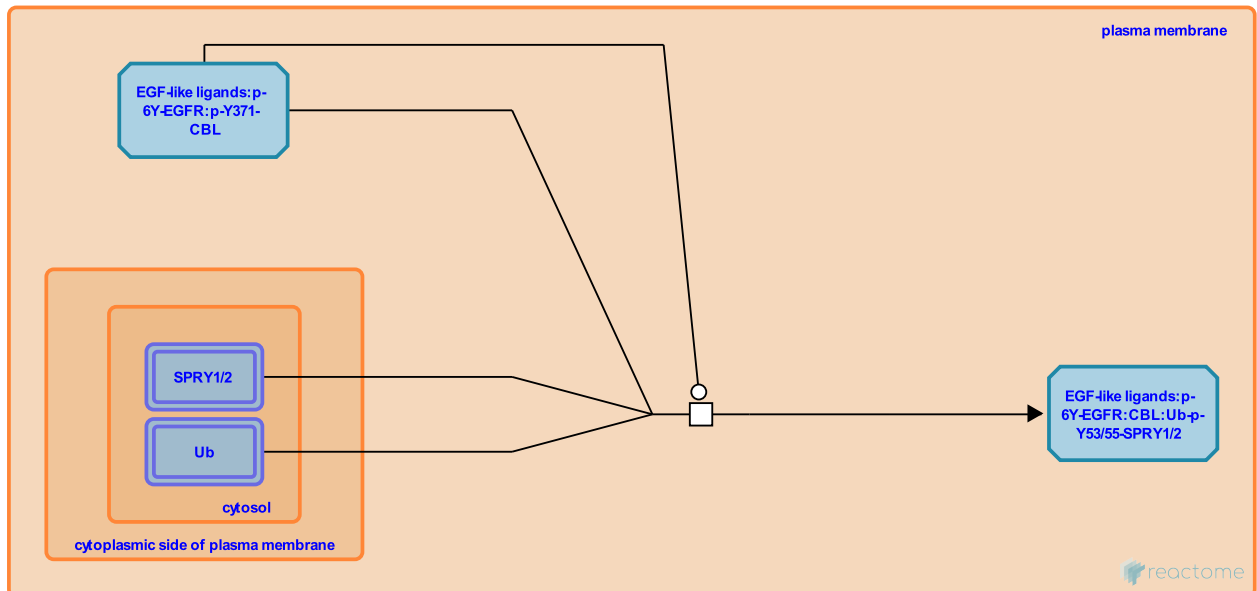
This document contains 1 reaction ([see Table of Contents](#))

## CBL binds and ubiquitinates phosphorylated Sprouty [↗](#)

**Stable identifier:** R-HSA-183089

**Type:** transition

**Compartments:** cytosol, plasma membrane



Sprouty is ubiquitinated by CBL in an EGF-dependent manner. EGF stimulation induces the tyrosine phosphorylation of Sprouty, which in turn enhances the interaction of Sprouty with CBL. The CBL-mediated ubiquitination of Sprouty targets the protein for degradation by the 26S proteasome.

### Literature references

Hall, AB., Jura, N., Gong, D., DaSilva, J., Bar-Sagi, D., Jang, YJ. (2003). hSpry2 is targeted to the ubiquitin-dependent proteasome pathway by c-Cbl. *Curr Biol*, 13, 308-14. [↗](#)

### Editions

2006-10-10	Authored	Castagnoli, L.
2008-02-12	Reviewed	Heldin, CH.
2011-08-25	Edited	Orlic-Milacic, M.