# CTNNBIP1 binds beta-catenin

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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. ↗

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. ↗

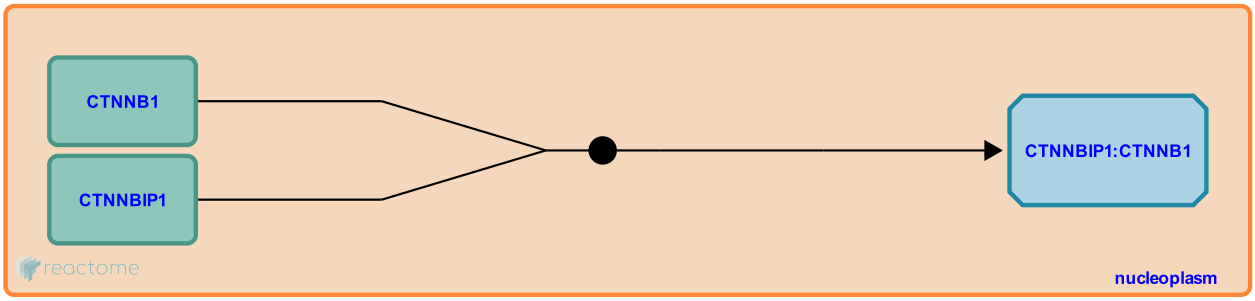
Fabregat, A., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology, 14*, e1005968. ↗

## CTNNBIP1 binds beta-catenin ↗

**Stable identifier:** R-HSA-3772430

**Type:** binding

**Compartments:** nucleoplasm




CTNNBIP1 (also known as ICAT) is an 81 amino-acid protein that was identified in a two-hybrid screen to identify beta-catenin interacting partners (Tago et al, 2000). CTNNBIP1 binds directly to beta-catenin in vitro and in vivo and interferes with the formation of a TCF/LEF:beta-catenin complex (Tago et al, 2000; Daniels and Weiss et al, 2002; Graham et al, 2002). Expression of CTNNBIP1 abrogates expression of a WNT-dependent reporter gene (Tago et al, 2000).

## Literature references

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Graham, TA., Clements, WK., Kimelman, D., Xu, W. (2002). The crystal structure of the beta-catenin/ICAT complex reveals the inhibitory mechanism of ICAT. *Mol. Cell, 10*, 563-71. ↗

## Editions

| | | |
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