

# BAP1 binds BRCA1:BARB1 heterodimer

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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. [↗](#)

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Reactome database release: 88

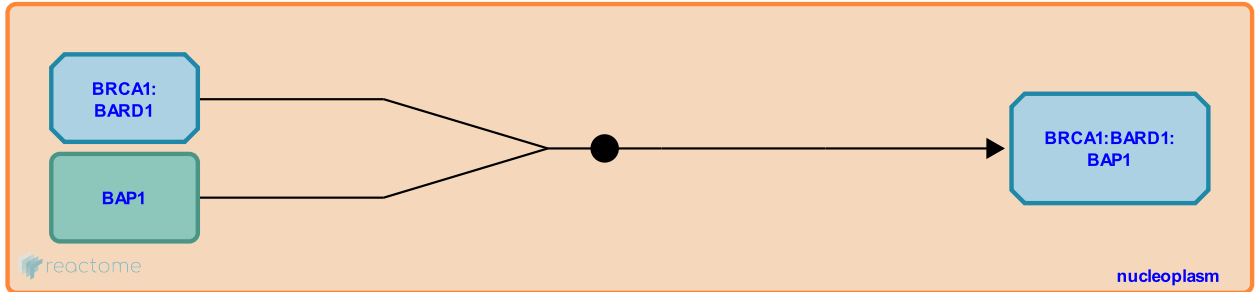
This document contains 1 reaction ([see Table of Contents](#))

**BAP1 binds BRCA1:BARD1 heterodimer** ↗

**Stable identifier:** R-HSA-9701003

**Type:** binding

**Compartments:** nucleoplasm



BAP1 binds to the BRCA1:BARD1 complex mainly through interaction with BARD1, although BRCA1 enhances the interaction. Amino acid residues 182-365 of BAP1 bind to the RING domain of BARD1, but outside of the BRCA1-binding site in the BARD1 RING domain (Nishikawa et al. 2009).

**Literature references**

Kojima, R., Fukuda, M., Koike, A., Nishikawa, H., Ohta, T., Wu, W. et al. (2009). BRCA1-associated protein 1 interferes with BRCA1/BARD1 RING heterodimer activity. *Cancer Res.*, 69, 111-9. ↗

**Editions**

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