

# atROL binds RBP1 to form RBP1:atROL

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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. [↗](#)
- 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. [↗](#)

Reactome database release: 88

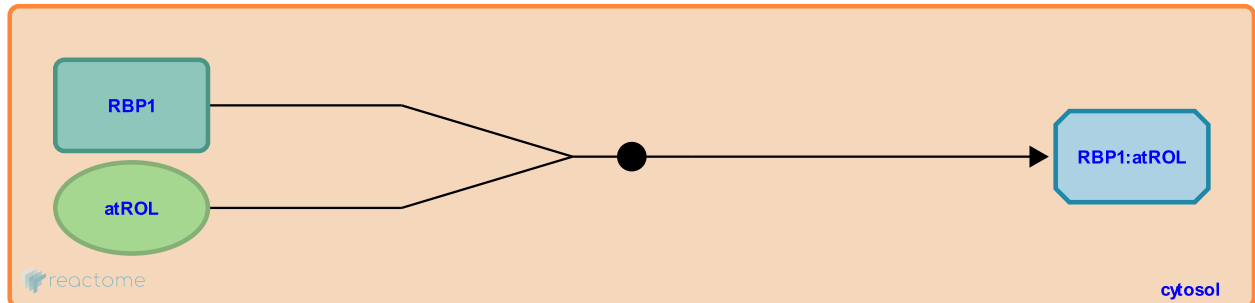
This document contains 1 reaction ([see Table of Contents](#))

## atROL binds RBP1 to form RBP1:atROL [↗](#)

**Stable identifier:** R-HSA-74843

**Type:** binding

**Compartments:** cytosol



Once all-trans-retinol (atROL) enters the retinal pigment epithelium (RPE) and before esterification takes place, atROL binds to cellular retinol-binding protein 1 (RBP1) (Folli et al. 2001). The resultant complex (RBP1:atROL) serves as a substrate for lecithin retinol acyltransferase (LRAT), the main enzyme responsible for the esterification of atROL.

### Literature references

Folli, C., Berni, R., Bolchi, A., Calderone, V., Stoppini, M., Zanotti, G. et al. (2001). Identification, retinoid binding, and x-ray analysis of a human retinol-binding protein. *Proc. Natl. Acad. Sci. U.S.A.*, 98, 3710-5. [↗](#)

### Editions

2003-07-31	Authored	Carleton, KL.
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