

# **IKBKG subunit of IKK complex binds K63pUb- RIP1 within the TLR3 complex**

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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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- 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. [↗](#)

Reactome database release: 83

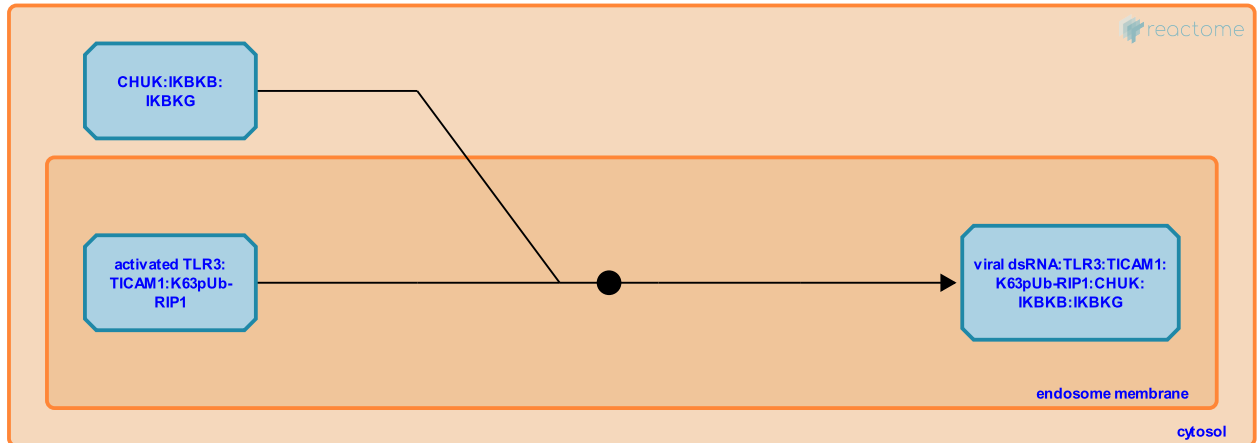
This document contains 1 reaction ([see Table of Contents](#))

## IKBKG subunit of IKK complex binds K63pUb- RIP1 within the TLR3 complex [↗](#)

**Stable identifier:** R-HSA-9014343

**Type:** binding

**Compartments:** endosome membrane, cytosol



Structural studies showed that NEMO binds both Lys-63- and linear polyubiquitin chains, both critical for NF- $\kappa$ B activation.

### Literature references

Deng, L., Chen, ZJ., Pineda, G., Xia, ZP., Ea, CK. (2006). Activation of IKK by TNF $\alpha$  requires site-specific ubiquitination of RIP1 and polyubiquitin binding by NEMO. *Mol Cell*, 22, 245-57. [↗](#)

Srinivasula, SM., Conze, DB., Ashwell, JD., Li, T., Wu, CJ. (2006). Sensing of Lys 63-linked polyubiquitination by NEMO is a key event in NF- $\kappa$ B activation [corrected]. *Nat Cell Biol*, 8, 398-406. [↗](#)

### Editions

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