

# Beta defensin 103 activates TLR1:TLR2

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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. [↗](#)
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Reactome database release: 88

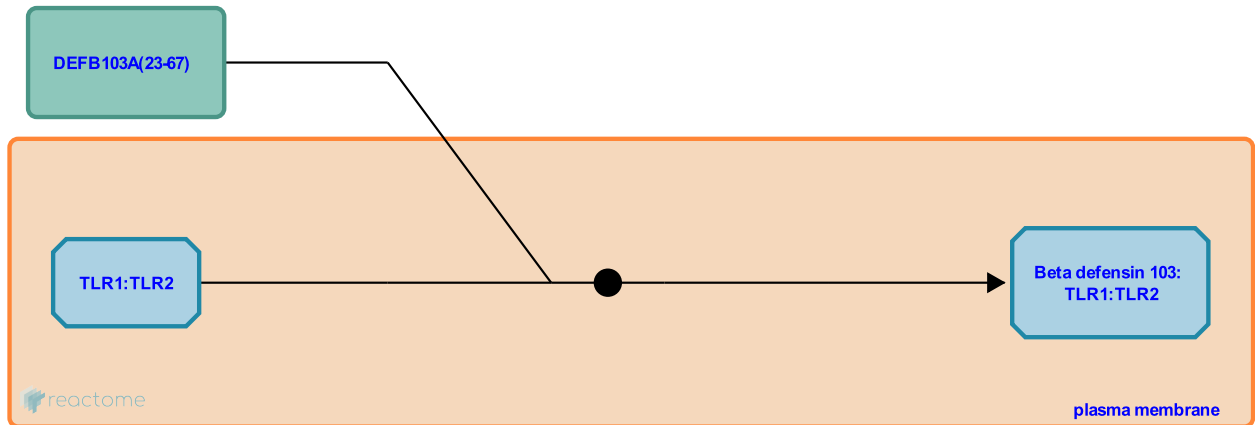
This document contains 1 reaction ([see Table of Contents](#))

## Beta defensin 103 activates TLR1:TLR2 [↗](#)

**Stable identifier:** R-HSA-1974676

**Type:** binding

**Compartments:** extracellular region, plasma membrane



Beta defensin 103 (hBD-3) can induce expression of the costimulatory molecules CD80, CD86 and CD40 on monocytes and myeloid dendritic cells in a Toll-like receptor (TLR)-dependent manner. Activation by hBD-3 is mediated by an interaction that requires TLRs 1 and 2 (Funderburg et al. 2007, 2011).

### Literature references

Lederman, MM., Harding, CV., Drage, MG., Feng, Z., Funderburg, N., Jadowsky, J. et al. (2007). Human -defensin-3 activates professional antigen-presenting cells via Toll-like receptors 1 and 2. *Proc Natl Acad Sci U S A*, 104, 18631-5. [↗](#)

### Editions

2011-11-03	Reviewed	McDermott, AM.
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