

# Interaction of Erp57 with MHC class I HC

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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. [↗](#)

Reactome database release: 88

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

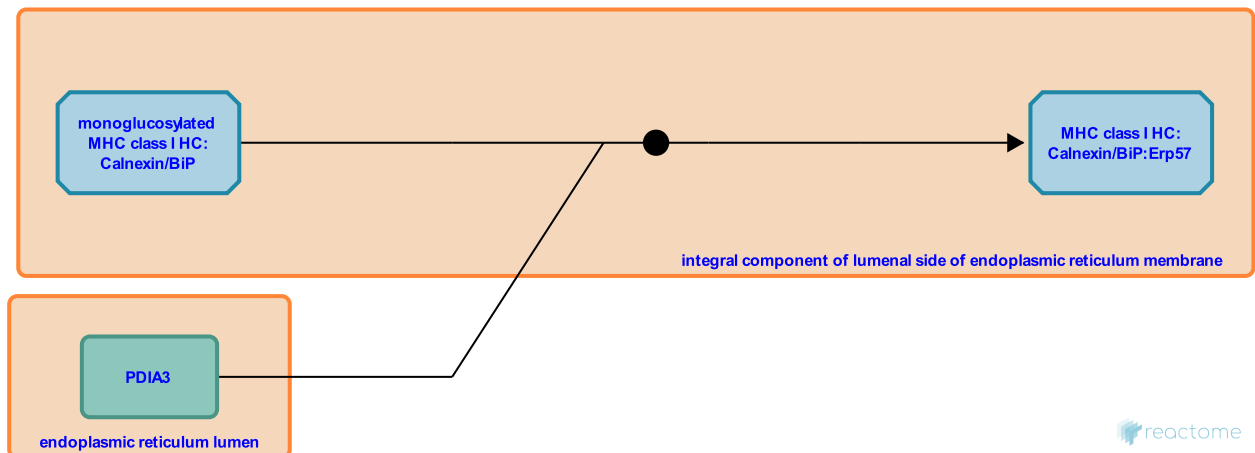
## Interaction of Erp57 with MHC class I HC [↗](#)

**Stable identifier:** R-HSA-983148

**Type:** binding

**Compartments:** integral component of luminal side of endoplasmic reticulum membrane, endoplasmic reticulum lumen

**Inferred from:** [Interaction of Erp57 with MHC class I HC \(Mus musculus\)](#)



Endoplasmic reticulum resident protein 57 (ERp57), is a member of the protein disulphide isomerase (PDI) family of thiol oxidoreductases. It associates with Calnexin (CNX), and its soluble homolog calreticulin (CRT) and is recruited to MHC Class I Heavy Chain (HC). ERp57 is involved in the formation of HC disulphide bonds.

### Editions

2010-10-29	Authored, Edited	Garapati, P V.
2011-02-11	Reviewed	Elliott, T.