

Release of Cytochrome c from mitochondria

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04/05/2024

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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

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

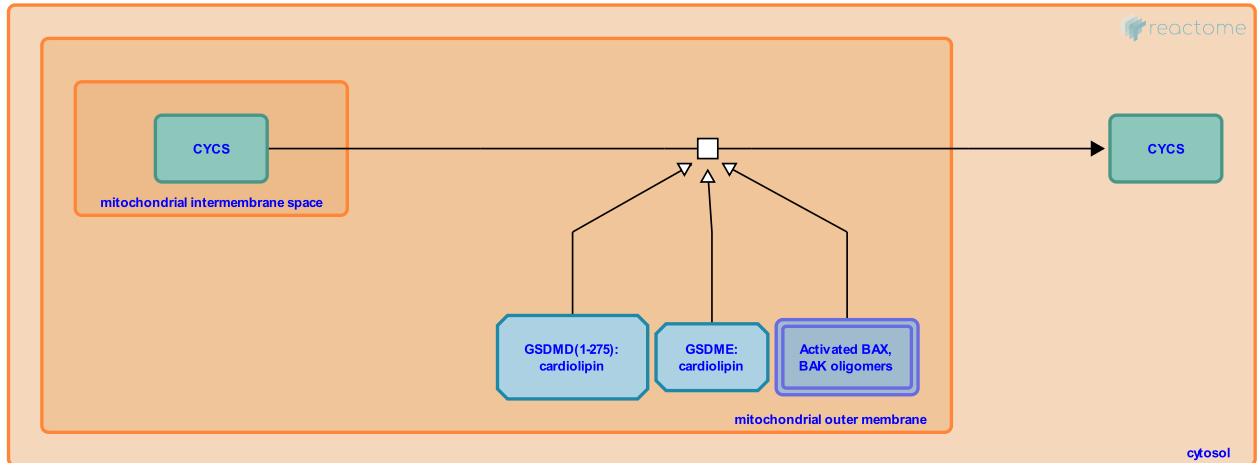
This document contains 1 reaction ([see Table of Contents](#))

Release of Cytochrome c from mitochondria [↗](#)

Stable identifier: R-HSA-114284

Type: transition

Compartments: mitochondrial outer membrane



Permeabilization of the outer mitochondrial membrane by pro-apoptotic BCL2 family proteins, such as BAK and BAX, allows cytochrome c efflux from the mitochondrial intermembrane space into the cytosol (Arnoult et al. 2003).

Literature references

Song, Z., Wu, M., Yao, X. (2003). Direct interaction between survivin and Smac/DIABLO is essential for the anti-apoptotic activity of survivin during taxol-induced apoptosis. *J Biol Chem*, 278, 23130-40. [↗](#)

Arnoult, D., Karbowski, M., Gaume, B., Cecconi, F., Sharpe, JC., Youle, RJ. (2003). Mitochondrial release of AIF and EndoG requires caspase activation downstream of Bax/Bak-mediated permeabilization. *EMBO J*, 22, 4385-99. [↗](#)

Editions

2018-09-25	Reviewed	Matthews, L.
2021-02-17	Reviewed	D'Eustachio, P., Kanneganti, TD.
2021-04-22	Reviewed	Shao, F.