

PGRMC2:Hemes translocate to the nucleus

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05/05/2024

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

- 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

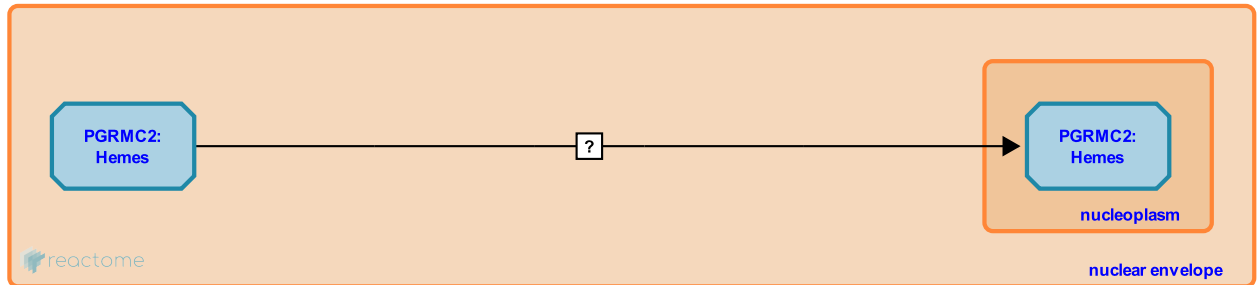
This document contains 1 reaction ([see Table of Contents](#))

PGRMC2:Hemes translocate to the nucleus [↗](#)

Stable identifier: R-HSA-9707606

Type: uncertain

Compartments: nuclear envelope, nucleoplasm



PGRMC2 binds heme reversibly. Also, PGRMC2 can bind to AAAS, a subunit of the nuclear pore complex, suggesting nuclear import of the PGRMC2:heme complex through the NPC takes place (Jühlen et al, 2016; Parker et al, 2017; Galmozzi et al 2020).

Literature references

Jühlen, R., Landgraf, D., Koehler, K., Huebner, A. (2016). Identification of a novel putative interaction partner of the nucleoporin ALADIN. *Biol Open*, 5, 1697-1705. [↗](#)

Editions

2020-11-12	Authored, Edited	Stephan, R.
2021-01-23	Reviewed	Somers, J.