

ING2 binds PI5P

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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

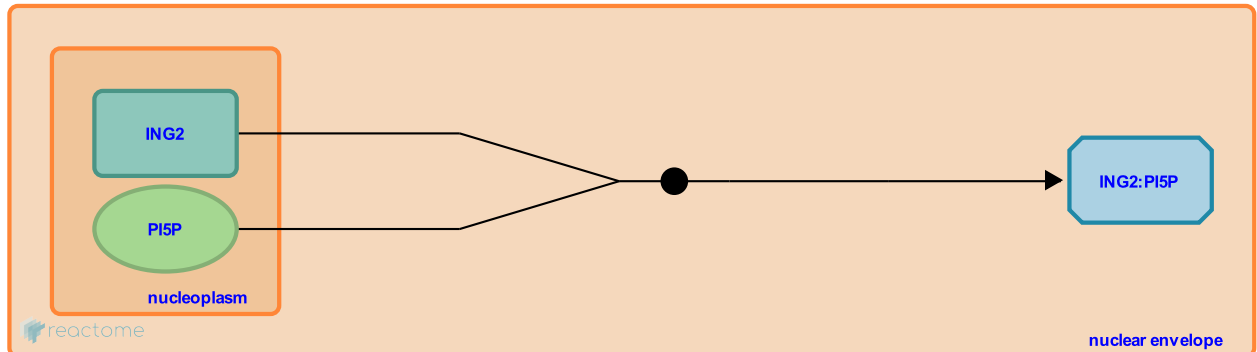
This document contains 1 reaction ([see Table of Contents](#))

ING2 binds PI5P [↗](#)

Stable identifier: R-HSA-6810376

Type: binding

Compartments: nucleoplasm, nuclear envelope



The PHD finger of ING2 binds phosphatidylinositol-5-phosphate (PI5P) (Gozani et al. 2003), which promotes nuclear retention of ING2 (Jones et al. 2006, Zou et al. 2007).

Literature references

Marjanovic, J., Majerus, PW., Kisseleva, MV., Wilson, M., Zou, J. (2007). Type I phosphatidylinositol-4,5-bisphosphate 4-phosphatase regulates stress-induced apoptosis. *Proc. Natl. Acad. Sci. U.S.A.*, 104, 16834-9. [↗](#)

Jones, DR., D'Santos, CS., Bultsma, Y., Heck, AJ., Keune, WJ., Halstead, JR. et al. (2006). Nuclear PtdIns5P as a transducer of stress signaling: an in vivo role for PIP4Kbeta. *Mol. Cell*, 23, 685-95. [↗](#)

Ivanov, D., Jones, DR., Zhu, H., Baird, CL., Lessnick, SL., Gozani, O. et al. (2003). The PHD finger of the chromatin-associated protein ING2 functions as a nuclear phosphoinositide receptor. *Cell*, 114, 99-111. [↗](#)

Editions

| | | |
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