

NEIL1 translocates to the nucleus

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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. [↗](#)

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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

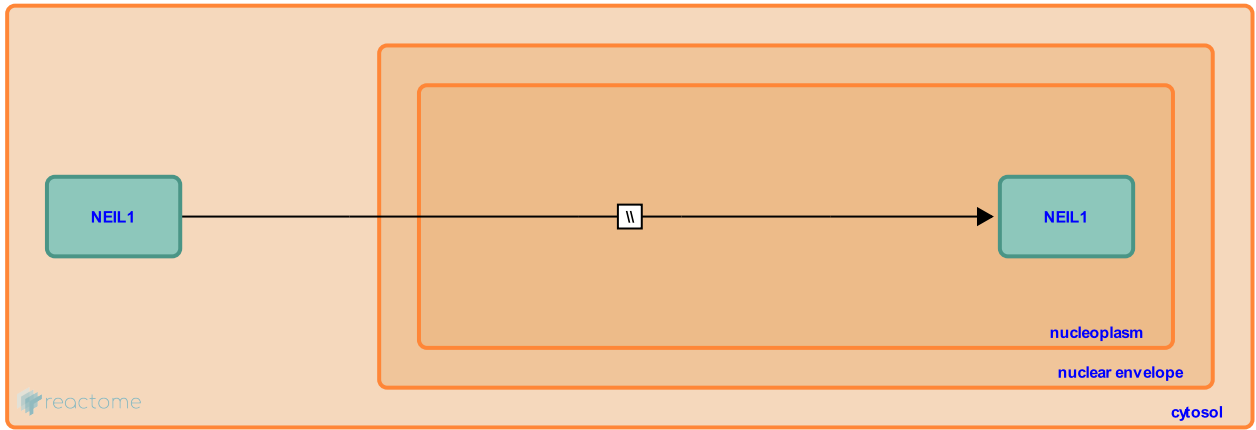
This document contains 1 reaction ([see Table of Contents](#))

NEIL1 translocates to the nucleus [↗](#)

Stable identifier: R-HSA-9629918

Type: omitted

Compartments: cytosol, nucleoplasm



NEIL1 localizes to the nucleus. The nuclear localization signal (NLS) is predicted to be located at positions 359-378 of NEIL1, but the mechanism of NEIL1 translocation from the cytosol to the nucleus has not been elucidated (Shinmura et al. 2015).

Literature references

Shinmura, K., Inoue, Y., Nakamura, S., Goto, M., Sugimura, H., Kato, H. et al. (2015). NEIL1 p.Gln282Stop variant is predominantly localized in the cytoplasm and exhibits reduced activity in suppressing mutations. *Gene*, 571, 33-42. [↗](#)

Editions

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