Exportin-5 recognizes 3' overhang of pre-miRNA

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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.

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. ↗

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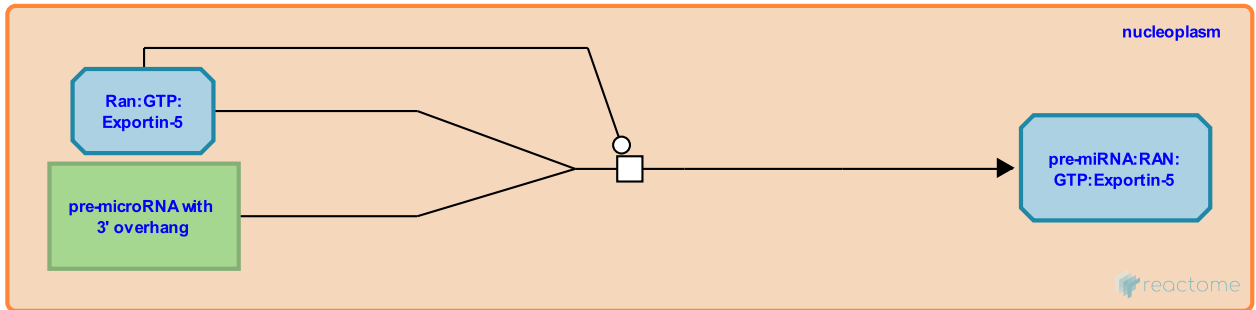
Reactome database release: 88

This document contains 1 reaction (see Table of Contents)

Exportin-5 recognizes 3' overhang of pre-miRNA ↗

Stable identifier: R-HSA-203922

Type: transition

Compartments: nucleoplasm

Exportin-5 binds pre-microRNAs having 2-nucleotide overhangs at the 3' end. Binding is independent of sequence and depends on GTP.

Literature references

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Macara, IG., Yi, R., Cullen, BR., Qin, Y. (2003). Exportin-5 mediates the nuclear export of pre-microRNAs and short hairpin RNAs. *Genes Dev, 17*, 3011-6. ↗

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Editions

2007-11-19	Authored	Gopinathrao, G., May, B.
2008-02-08	Reviewed	Hannon, GJ., Karginov, F.
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