Nucleoprotein is methylated by PRMT1

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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


Reactome database release: 78

This document contains 1 reaction (see Table of Contents)
Protein arginine methyltransferase 1 (PRMT1) methylates SARS-CoV-2 nucleoprotein on two arginines (R95 and R177). This modification is required for its RNA binding capacity, since treatment with a type I PRMT inhibitor (MS023) or substitution of R95K or R177K inhibited interaction with the 5'-UTR of the SARS-CoV-2 genomic RNA. Pre-treatment of VeroE6 cells with MS023 significantly reduced SARS-CoV-2 replication (Cai et al, 2021).

**Literature references**


**Editions**

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