Methylation of GMP-cap by RNA Methyltransferase

Buratowski, S.
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)
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Stable identifier: R-HSA-77090

Type: transition

Compartments: nucleoplasm

In the final step of the capping reaction, the methyltransferase takes a methyl group from S-adenosylmethionine to the N7 position of the cap guanine. N7G-methyltransferase (MT) mediated reaction can be represented as:

\[ \text{GpppN(pN)n + S-adenosylmethionine (Adomet)} \rightarrow \text{m7GpppN(pN)n + S-adenosylhomocysteine (Adohcy)}. \]

Literature references


Editions

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