dUTP + H2O => dUMP + pyrophosphate

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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: 75

This document contains 1 reaction (see Table of Contents)

https://www.reactome.org
dUTP + H2O $\rightarrow$ dUMP + pyrophosphate

**Stable identifier:** R-HSA-73666

**Type:** transition

**Compartments:** nucleoplasm

Deoxyuridine triphosphatase (DUT) catalyzes the hydrolysis of dUTP to form dUMP and pyrophosphate. Two isoforms of DUT are expressed, generated by alternative splicing. The major one, annotated here, is localized to the nucleoplasm (Ladner et al. 1996). The enzyme is a homotrimer (Mol et al. 1996). In the cell, this reaction depletes the supply of dUTP, preventing its incorporation into DNA, while generating dUMP, the immediate precursor of thymidine nucleotides.

**Literature references**


**Editions**

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