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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.

The development of Reactome is supported by grants from the US National Institutes of Health (P41 HG003751), University of Toronto (CFREF Medicine by Design), European Union (EU STRP, EMI-CD), and the European Molecular Biology Laboratory (EBI Industry program).

Literature references

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- 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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Reactome database release: 70

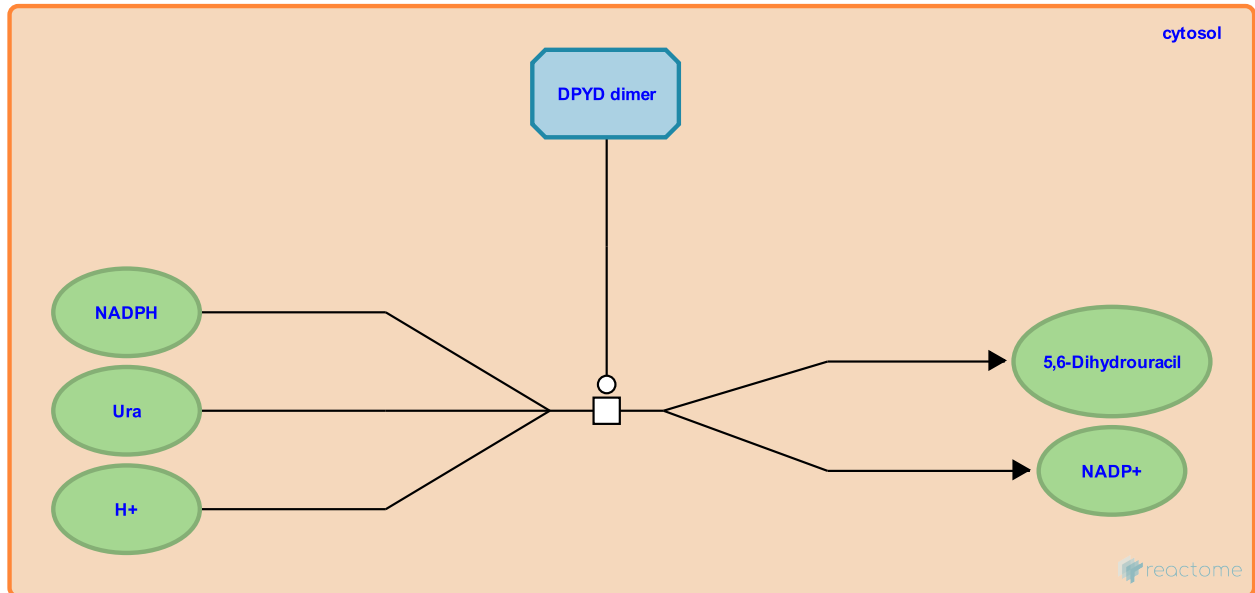
This document contains 1 reaction ([see Table of Contents](#))

uracil + NADPH + H+ => 5,6-dihydrouracil + NADP+ ↗

Stable identifier: R-HSA-73585

Type: transition

Compartments: cytosol



Cytosolic dihydropyrimidine dehydrogenase catalyzes the reaction of uracil and NADPH + H⁺ to form 5,6-dihydrouracil and NADP⁺. The mechanism of the human reaction is inferred from that of the well-characterized pig enzyme (Yokota et al. 1994).

Literature references

Yokota, H., Fernandez-Salguero, P., Furuya, H., Lin, K., McBride, OW., Podschun, B. et al. (1994). cDNA cloning and chromosome mapping of human dihydropyrimidine dehydrogenase, an enzyme associated with 5-fluorouracil toxicity and congenital thymine uraciluria. *J Biol Chem*, 269, 23192-6. ↗

Editions

2010-02-05

Revised

D'Eustachio, P.