

UROD decarboxylates URO1 to COPRO1

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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

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- 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

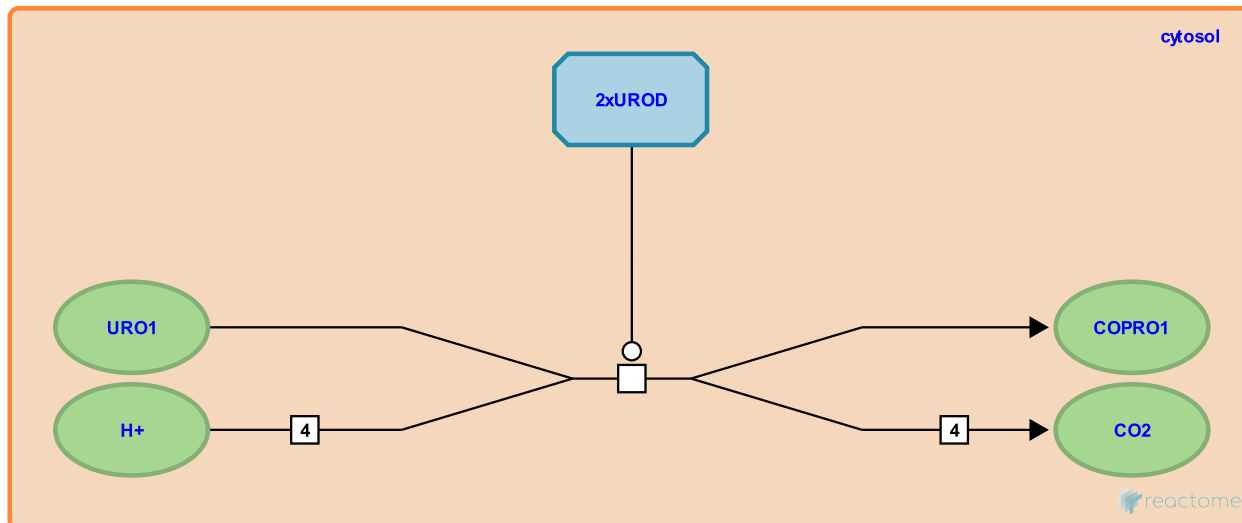
This document contains 1 reaction ([see Table of Contents](#))

UROD decarboxylates URO1 to COPRO1 [↗](#)

Stable identifier: R-HSA-190182

Type: transition

Compartments: cytosol



Cytosolic uroporphyrinogen decarboxylase (UROD) catalyzes the sequential removal of four carboxylic groups from the acetic acid side chains of uroporphyrinogen I (URO1) to form coproporphyrinogen I (COPRO1). UROD catalyzes this reaction less efficiently than the decarboxylation of uroporphyrinogen III (de Verneuil et al. 1983).

Literature references

Romana, M., Taieb, A., Topi, G., Moran-Jimenez, MJ., Ged, C., D'Alessandro, L. et al. (1996). Uroporphyrinogen decarboxylase: complete human gene sequence and molecular study of three families with hepatoerythropoietic porphyria. *Am J Hum Genet*, 58, 712-21. [↗](#)

Sassa, S., de Verneuil, H., Kappas, A. (1983). Purification and properties of uroporphyrinogen decarboxylase from human erythrocytes. A single enzyme catalyzing the four sequential decarboxylations of uroporphyrinogens I and III. *J Biol Chem*, 258, 2454-60. [↗](#)

Editions

2007-01-24	Authored, Edited	Jassal, B., D'Eustachio, P.
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