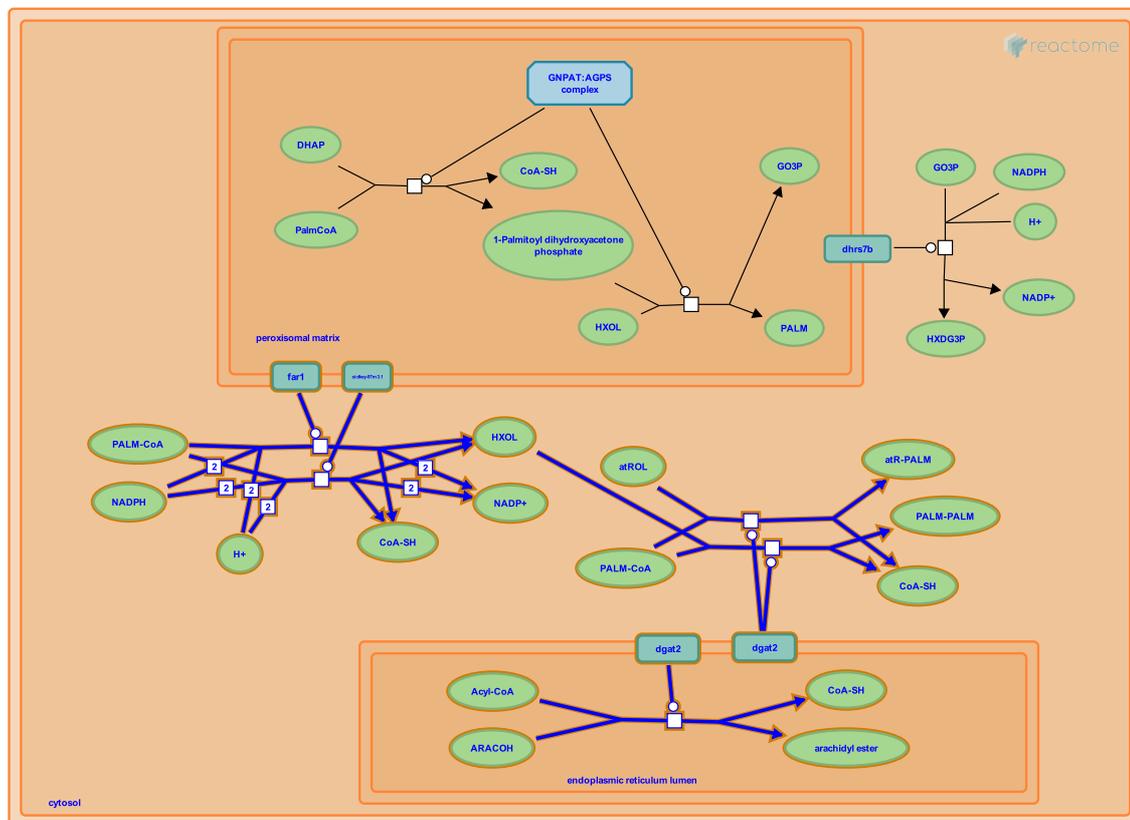


Wax biosynthesis



European Bioinformatics Institute, New York University Langone Medical Center, Ontario Institute for Cancer Research, Oregon Health and Science University.

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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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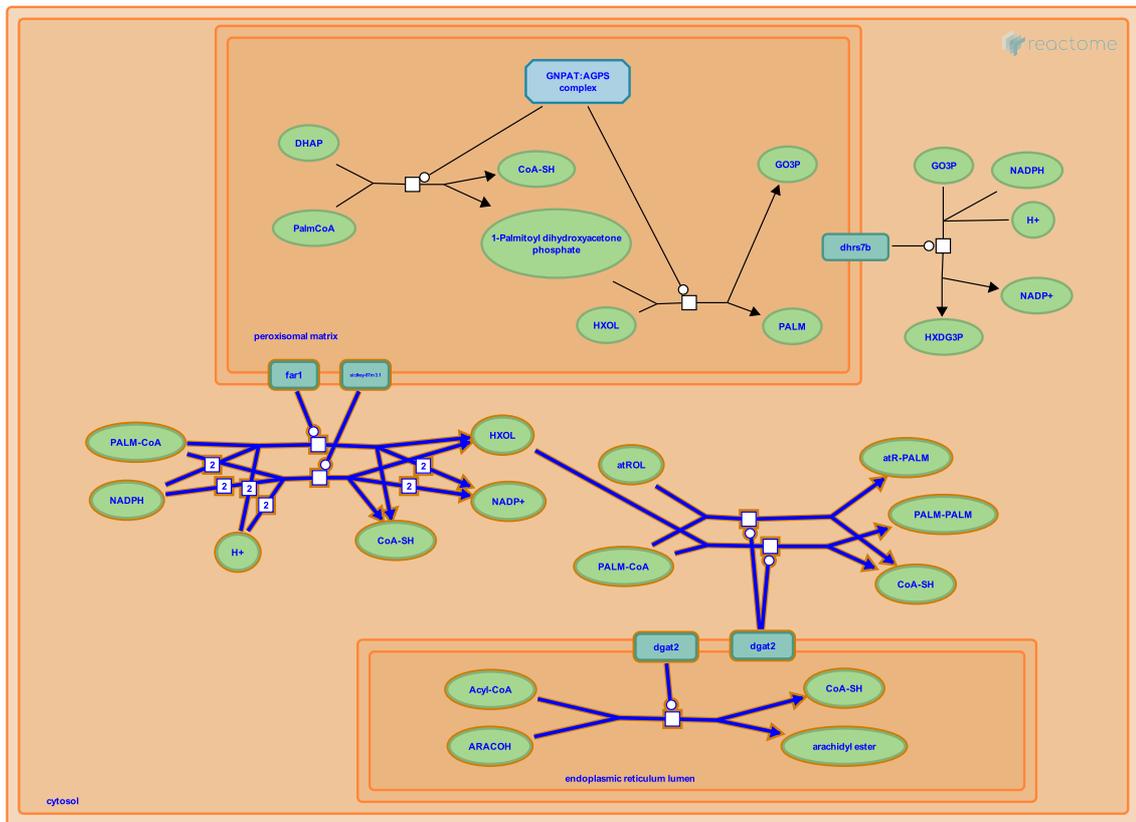
Reactome database release: 74

This document contains 1 pathway and 5 reactions ([see Table of Contents](#))

Wax biosynthesis ↗

Stable identifier: R-DRE-9640463

Inferred from: Wax biosynthesis (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

FAR1 reduces PalmCoA to HXOL ↗

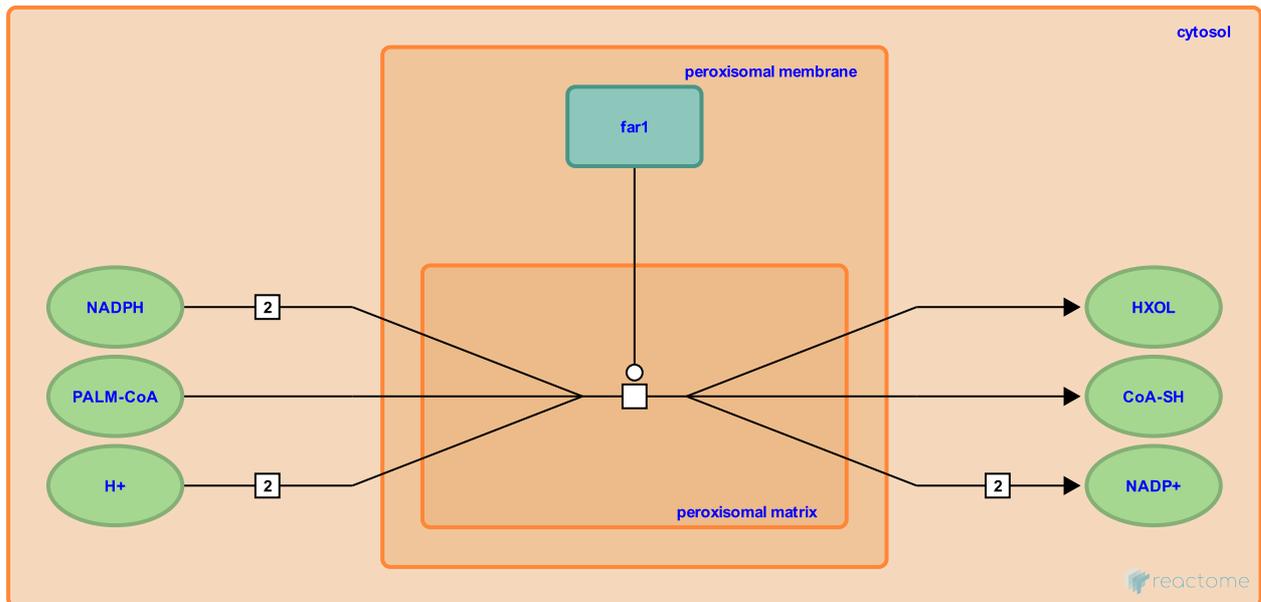
Location: [Wax biosynthesis](#)

Stable identifier: R-DRE-390425

Type: transition

Compartments: peroxisomal matrix

Inferred from: [FAR1 reduces PalmCoA to HXOL \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

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FAR2 reduces PalmCoA to HXOL ↗

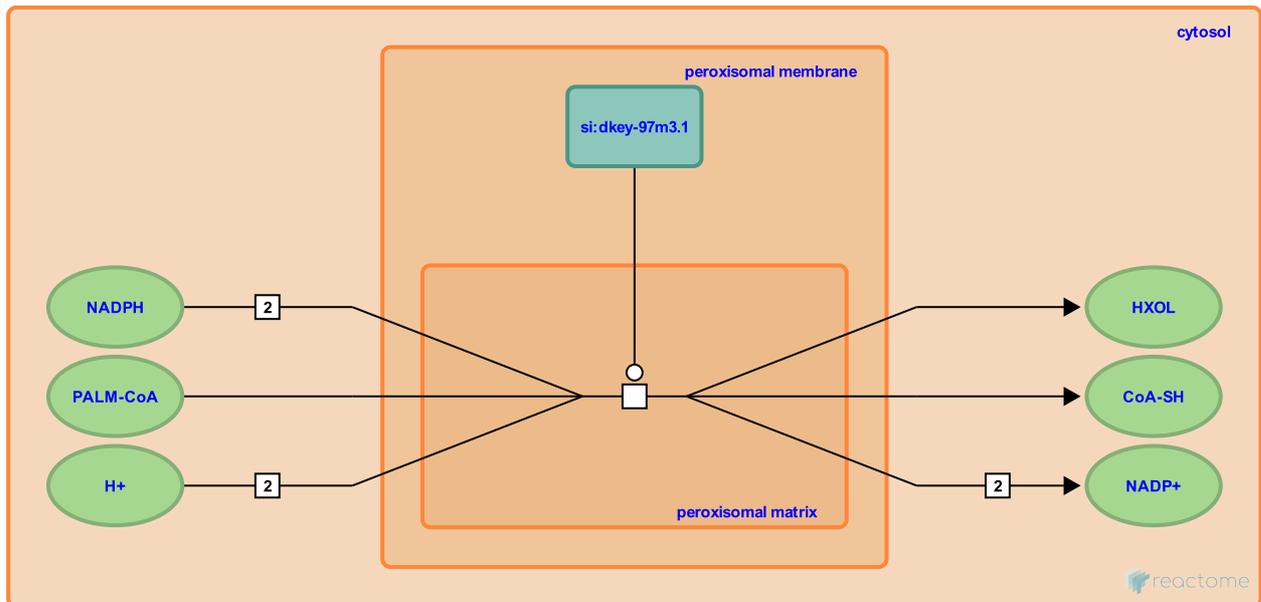
Location: [Wax biosynthesis](#)

Stable identifier: R-DRE-390438

Type: transition

Compartments: peroxisomal matrix

Inferred from: [FAR2 reduces PalmCoA to HXOL \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

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AWAT1 transfers acyl group from acyl-CoA to ARACOH, forming wax esters ↗

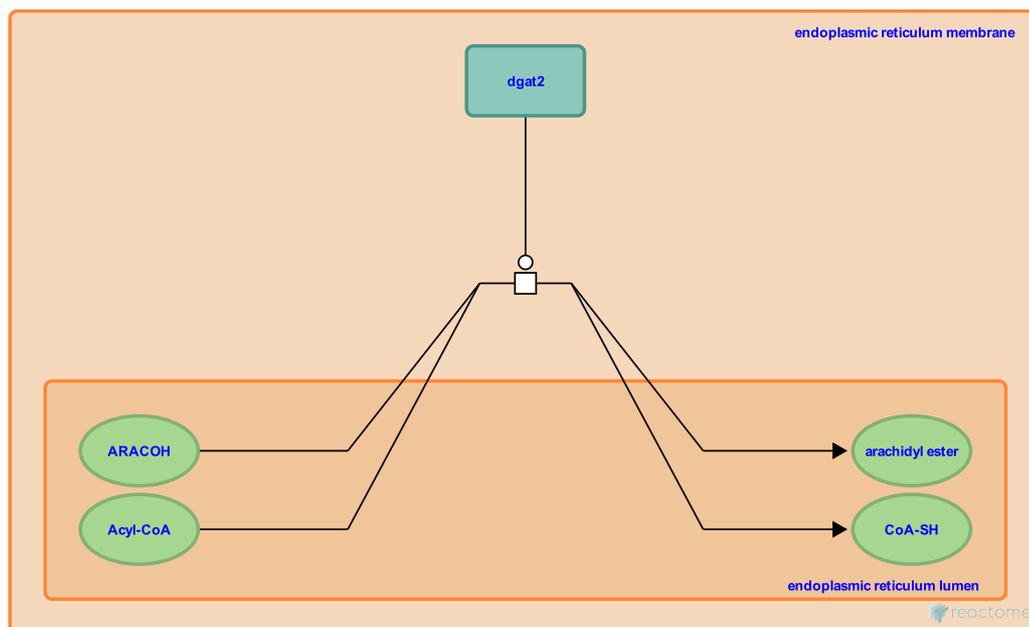
Location: Wax biosynthesis

Stable identifier: R-DRE-5696424

Type: transition

Compartments: endoplasmic reticulum membrane, endoplasmic reticulum lumen

Inferred from: AWAT1 transfers acyl group from acyl-CoA to ARACOH, forming wax esters (Homo sapiens)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

AWAT2 transfers PALM from PALM-CoA to HXOL, forming palmityl palmitate ester ↗

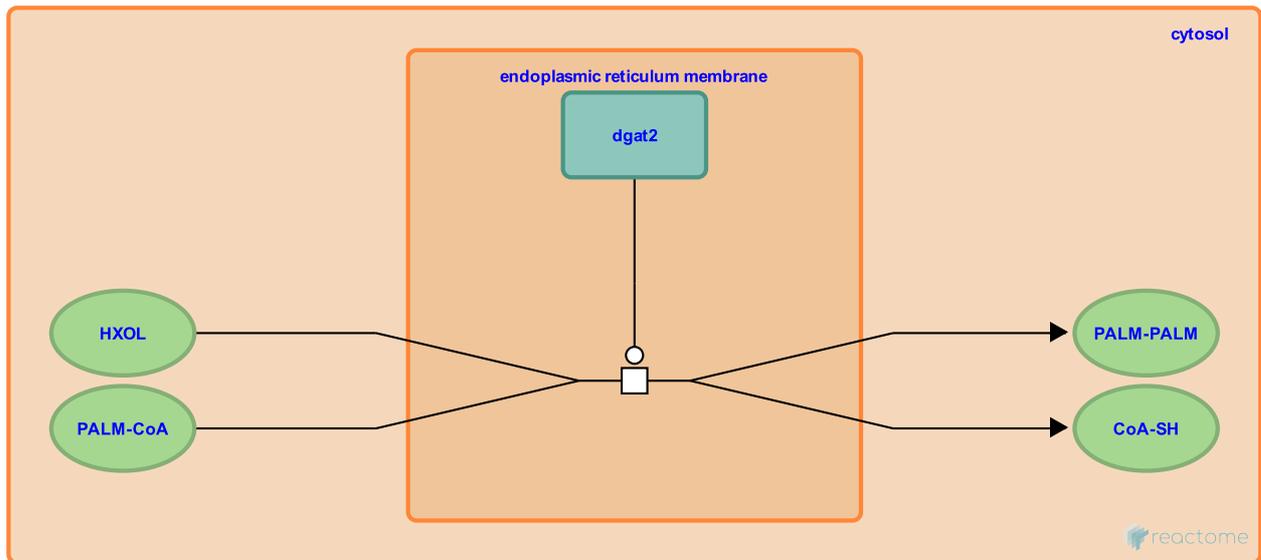
Location: [Wax biosynthesis](#)

Stable identifier: R-DRE-8848582

Type: transition

Compartments: endoplasmic reticulum membrane, cytosol

Inferred from: [AWAT2 transfers PALM from PALM-CoA to HXOL, forming palmityl palmitate ester \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

[More details and caveats of the event inference in Reactome.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

AWAT2 transfers PALM from PALM-CoA to atROL, forming atR-PALM ↗

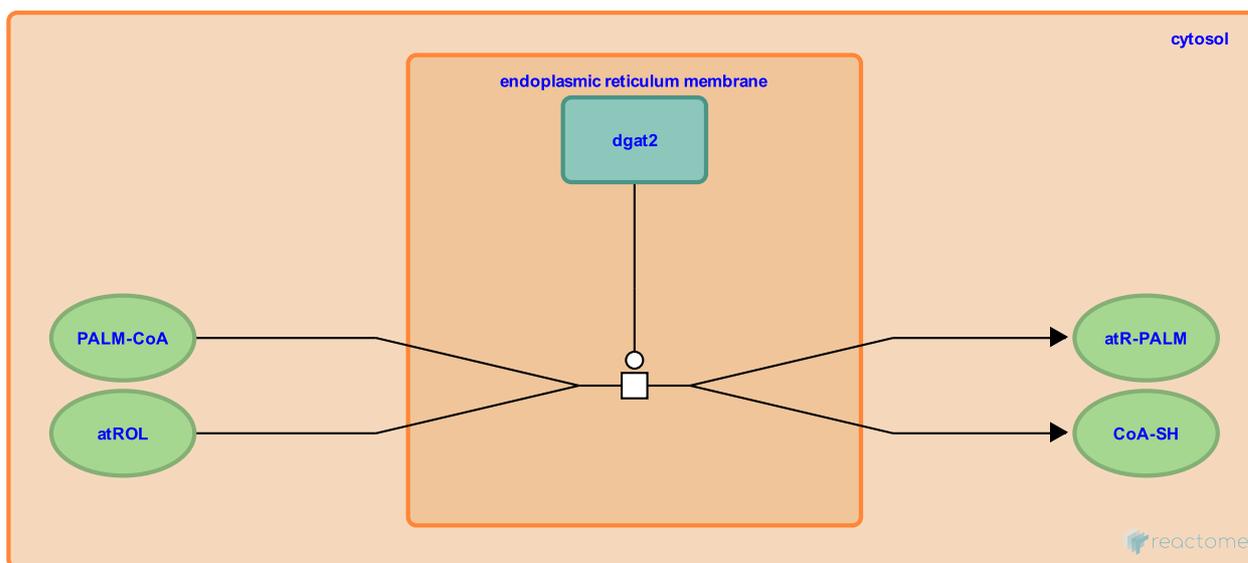
Location: [Wax biosynthesis](#)

Stable identifier: R-DRE-8848585

Type: transition

Compartments: endoplasmic reticulum membrane, cytosol

Inferred from: [AWAT2 transfers PALM from PALM-CoA to atROL, forming atR-PALM \(Homo sapiens\)](#)



This event has been computationally inferred from an event that has been demonstrated in another species.

The inference is based on the homology mapping from PANTHER. Briefly, reactions for which all involved PhysicalEntities (in input, output and catalyst) have a mapped orthologue/paralogue (for complexes at least 75% of components must have a mapping) are inferred to the other species. High level events are also inferred for these events to allow for easier navigation.

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