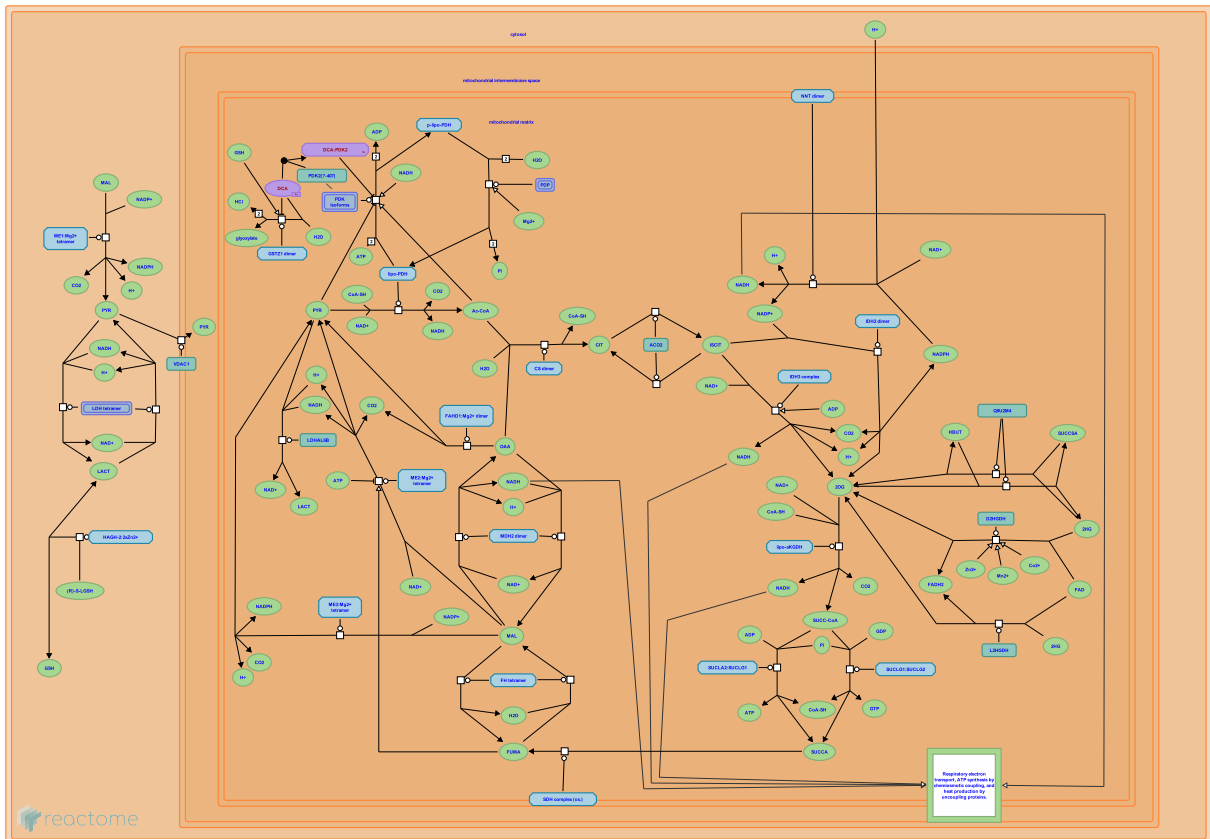


The citric acid (TCA) cycle and respiratory electron transport



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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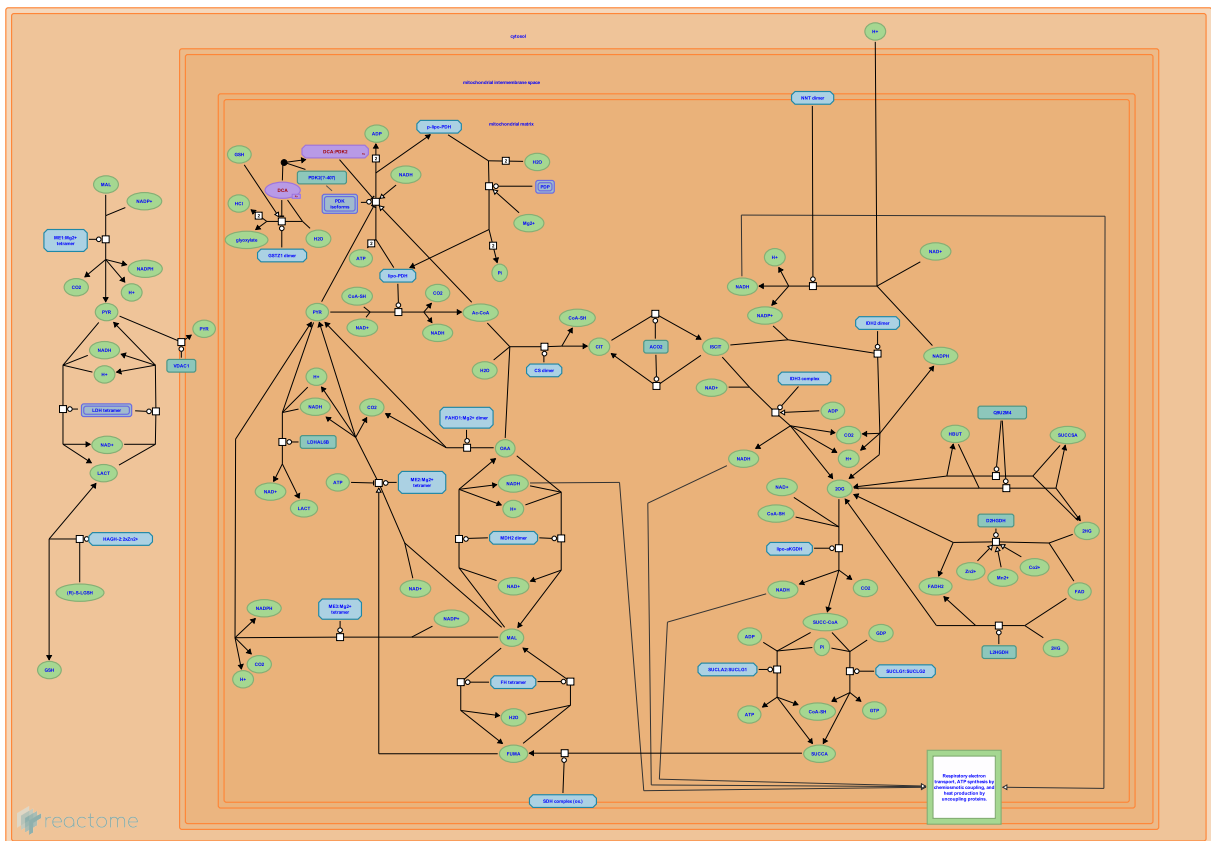
Reactome database release: 70

This document contains 3 pathways ([see Table of Contents](#))

The citric acid (TCA) cycle and respiratory electron transport ↗

Stable identifier: R-CEL-1428517

Inferred from: The citric acid (TCA) cycle and respiratory electron transport (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.

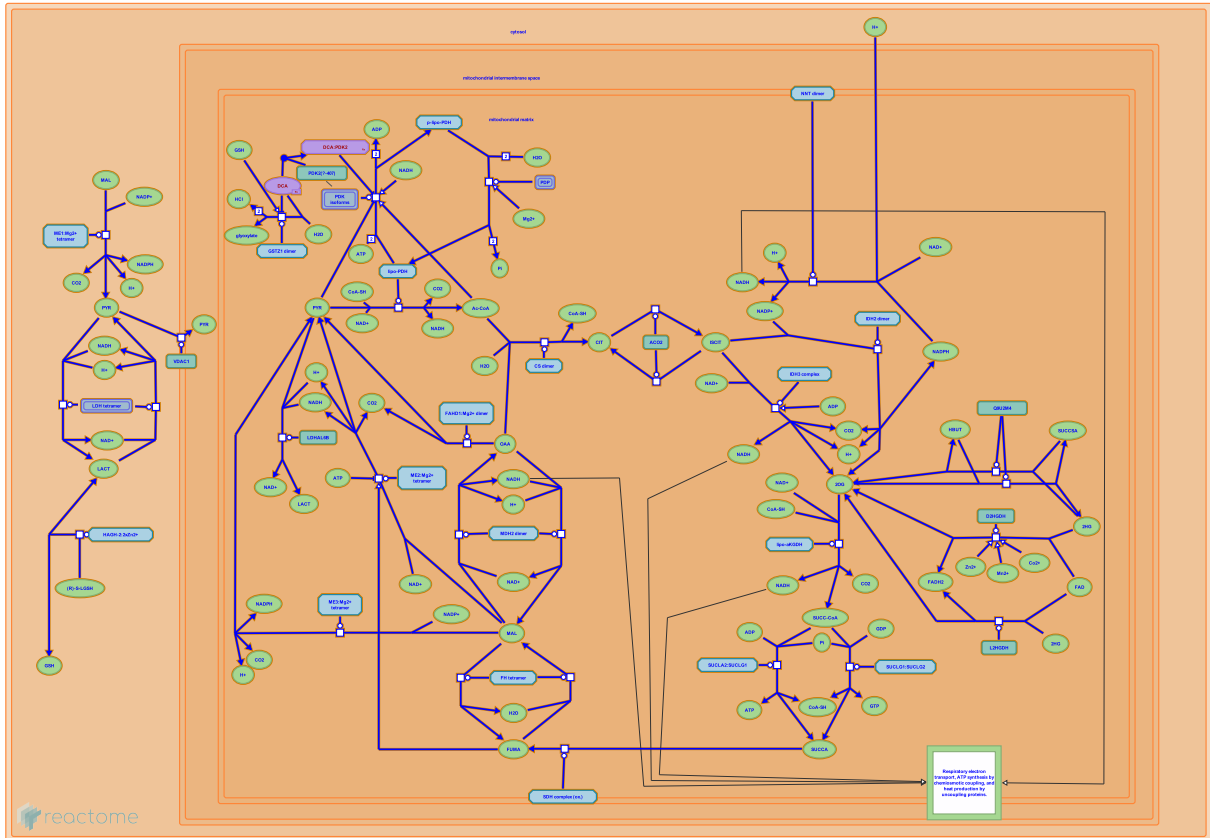
[More details and caveats of the event inference in Reactome.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Pyruvate metabolism and Citric Acid (TCA) cycle ↗

Location: The citric acid (TCA) cycle and respiratory electron transport

Stable identifier: R-CEL-71406

Inferred from: Pyruvate metabolism and Citric Acid (TCA) cycle (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.

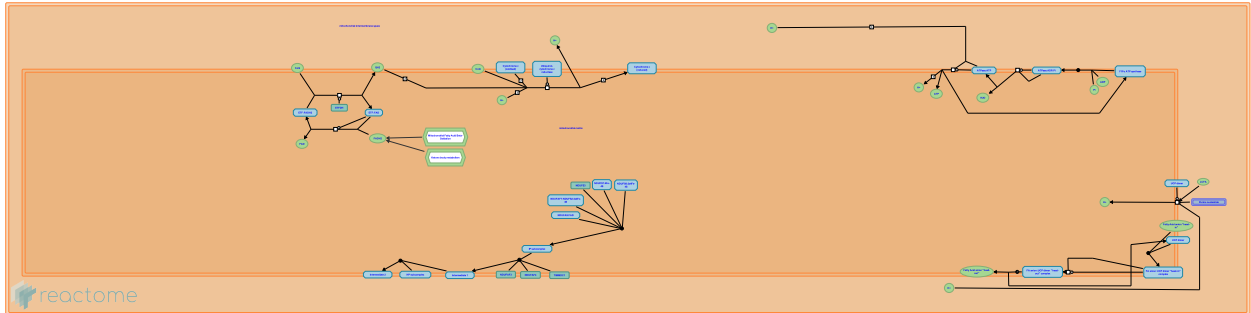
[More details and caveats of the event inference in Reactome.](/electronic_inference_compara.html) For details on PANTHER see also: <http://www.pantherdb.org/about.jsp>

Respiratory electron transport, ATP synthesis by chemiosmotic coupling, and heat production by uncoupling proteins. ↗

Location: The citric acid (TCA) cycle and respiratory electron transport

Stable identifier: R-CEL-163200

Inferred from: Respiratory electron transport, ATP synthesis by chemiosmotic coupling, and heat production by uncoupling proteins. (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>

Table of Contents

Introduction	1
❖ The citric acid (TCA) cycle and respiratory electron transport	2
❖ Pyruvate metabolism and Citric Acid (TCA) cycle	3
❖ Respiratory electron transport, ATP synthesis by chemiosmotic coupling, and heat production by uncoupling proteins.	4
Table of Contents	5