

# OXCT dimers transfer CoA from SUCC-CoA to ACA, forming ACA-CoA

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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., Korninger, F., Viteri, G., Sidiropoulos, K., Marin-Garcia, P., Ping, P. et al. (2018). Reactome graph database: Efficient access to complex pathway data. *PLoS computational biology*, 14, e1005968. [↗](#)

Reactome database release: 88

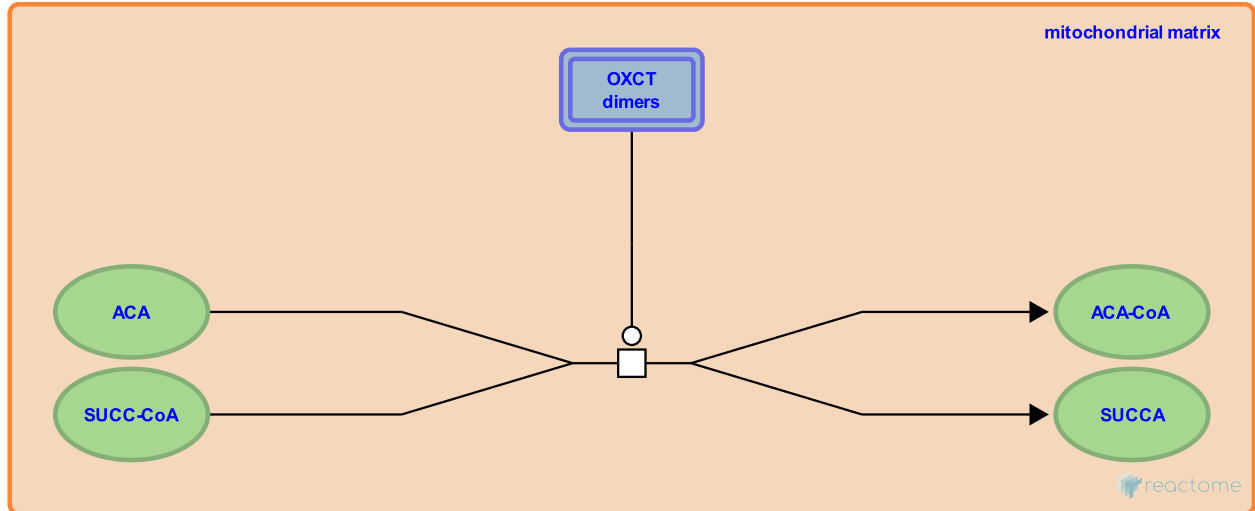
This document contains 1 reaction ([see Table of Contents](#))

## OXCT dimers transfer CoA from SUCC-CoA to ACA, forming ACA-CoA ↗

**Stable identifier:** R-HSA-74177

**Type:** transition

**Compartments:** mitochondrial matrix



Mitochondrial succinyl-CoA:3-ketoacid coenzyme A transferases 1 and 2 (OXCT1 and OXCT2) are key enzymes for the metabolism of ketone bodies, catalysing the first rate-limiting step of ketone body utilisation in peripheral tissues. In dimeric form, they mediate the transfer of a CoA moiety from succinyl-CoA (SUCC-CoA) to acetoacetate (ACA) to form acetoacetyl-CoA (ACA-CoA) and succinate (SUCCA) (Kassovska-Bratinova et al. 1996, Tanaka et al. 2002). ACA-CoA can be converted to acetyl-CoA which can be utilised by the tricarboxylic acid cycle for energy production.

### Literature references

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### Editions

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