

# Carbonic anhydrase dehydrates bicarbonate (mitochondria)

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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: 75

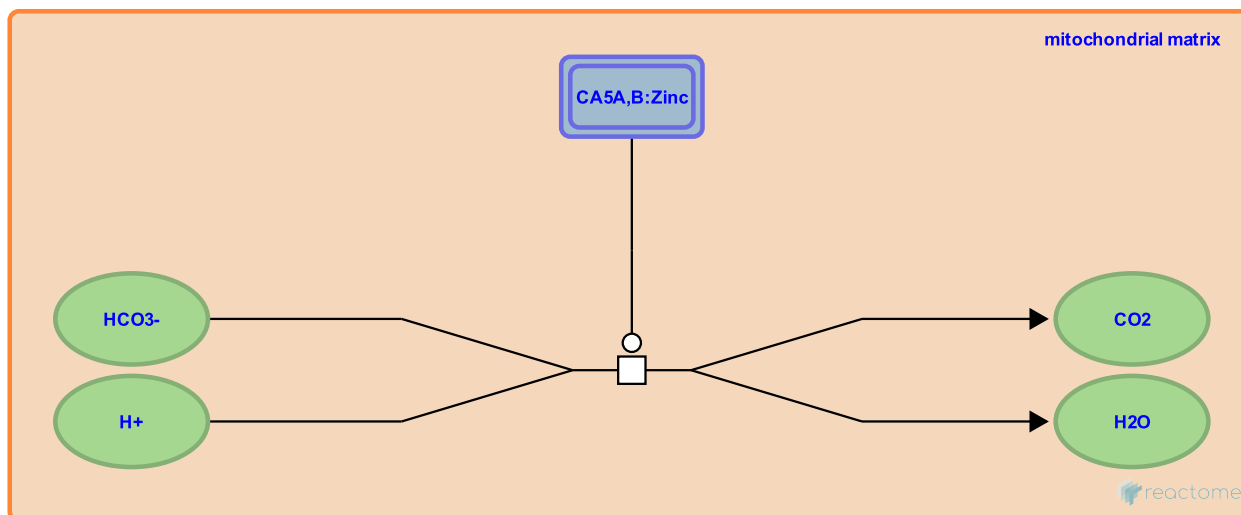
This document contains 1 reaction ([see Table of Contents](#))

## Carbonic anhydrase dehydrates bicarbonate (mitochondria) ↗

**Stable identifier:** R-HSA-1475028

**Type:** transition

**Compartments:** mitochondrial matrix



Carbonic anhydrase VA (CA5A, Nagao et al. 1993, Franchi et al. 2003, Nishimori et al. 2007) and carbonic anhydrase VB (CA5B, Fujikawa-Adachi et al. 1999, Nishimori et al. 2005, Nishimori et al. 2007) dehydrate bicarbonate in mitochondria to yield water and carbon dioxide (reviewed in Lindskog 1997). Depending on the concentrations of reactants the reaction is reversible.

### Literature references

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### Editions

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