

# Aconitate hydratase 3, mitochondrial (ACO3), Recombinant Protein

Cat RP01267

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## Species

Arabidopsis thaliana (Mouse-ear cress)

## Full Product Name

Recombinant Arabidopsis thaliana Aconitate hydratase 3, mitochondrial (ACO3) , partial

## Product Gene Name

ACO3 recombinant protein

## Product Synonym Gene Name

ACO3

## Purity

Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)

## Format

Lyophilized or liquid (Format to be determined during the manufacturing process)

## Host

E Coli or Yeast or Baculovirus or Mammalian Cell

## Molecular Weight

108,481 Da

## Storage

Store at -20°C. For long-term storage, store at -20°C or -80°C. Store working aliquots at 4°C for up to one week. Repeated freezing and thawing is not recommended.

## Protein Family

Aconitate hydratase

## NCBI Accession #

NP\_567763.2

## NCBI GI #

186513977

## NCBI GenBank Nucleotide #

NM\_118831.4

## NCBI GeneID

828805

## NCBI Official Full Name

aconitase 2

## NCBI Official Symbol

ACO2

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**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

# Aconitate hydratase 3, mitochondrial (ACO3), Recombinant Protein

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## NCBI Official Synonym Symbols

aconitase 2; F10M23.310; F10M23\_310

## NCBI Protein Information

aconitase 2

## NCBI Summary

Encodes an aconitase that can catalyze the conversion of citrate to isocitrate through a cis-aconitate intermediate, indicating that it may participate in the TCA cycle and other primary metabolic pathways. The protein is believed to accumulate in the mitochondria and the cytosol. It affects CSD2 (At2g28190 - a superoxide dismutase) transcript levels and may play a role in the response to oxidative stress. One member of the family (ACO1 - At35830) was shown to specifically bind to the 5' UTR of CSD2 in vitro.

## UniProt Gene Name

ACO2

## UniProt Synonym Gene Names

mACO2

## UniProt Protein Name

Aconitate hydratase 2, mitochondrial

## UniProt Synonym Protein Names

Citrate hydro-lyase 2

## UniProt Primary Accession #

Q94A28

## UniProt Secondary Accession #

Q9SZ36

## UniProt Related Accession #

Q94A28

## UniProt Comments

Catalyzes the isomerization of citrate to isocitrate via cis-aconitate. Contributes to oxidative stress tolerance (PubMed:17013749). Involved in acetate assimilation (PubMed:25061985).

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