

# Lipoxygenase 2, chloroplastic (LOX2), Recombinant Protein

Cat RP01287

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## Species

Arabidopsis thaliana (Mouse-ear cress)

## Full Product Name

Recombinant Arabidopsis thaliana Lipoxygenase 2, chloroplastic (LOX2) , partial

## Product Gene Name

LOX2 recombinant protein

## 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

102,046 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

Lipoxygenase

## NCBI Accession #

NP\_566875.1

## NCBI GI #

18407921

## NCBI GenBank Nucleotide #

NM\_114383.3

## NCBI GeneID

823650

## NCBI Official Full Name

lipoxygenase 2

## NCBI Official Symbol

LOX2

## NCBI Official Synonym Symbols

ARABIDOPSIS THALIANA LIPOXYGENASE 2; ATLOX2; lipoxygenase 2

## NCBI Protein Information

**FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY**

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lipoxygenase 2

## NCBI Summary

Chloroplast lipoxygenase required for wound-induced jasmonic acid accumulation in Arabidopsis. Mutants are resistant to *Staphylococcus aureus* and accumulate salicylic acid upon infection.

## UniProt Gene Name

LOX2

## UniProt Synonym Gene Names

AtLOX2

## UniProt Protein Name

Lipoxygenase 2, chloroplastic

## UniProt Primary Accession #

P38418

## UniProt Secondary Accession #

Q0WLR8; Q56WG6; Q8GW45; Q8W4E4; Q9M1U5

## UniProt Related Accession #

P38418

## UniProt Comments

13S-lipoxygenase that can use linolenic acid as substrates. Plant lipoxygenases may be involved in a number of diverse aspects of plant physiology including growth and development, pest resistance, and senescence or responses to wounding. Catalyzes the hydroperoxidation of lipids containing a cis,cis-1,4-pentadiene structure. Required for the wound-induced synthesis of jasmonic acid (JA) in leaves.

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