

# Peptide methionine sulfoxide reductase A2 (MRSA2), Recombinant Protein

Cat RP05291

Size 0.02 mg (E-Coli)/ 0.1 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 1

mg (E-Coli)/ 0.1 mg (Baculovirus)/ 1 mg (Yeast)/ 0.1 mg (Mammalian-Cell)/ 1 mg (Baculovirus)/ 0.5 mg (Mammalian-Cell)  
Species Arabidopsis thaliana (Mouse-ear cress)

## Full Product Name

Recombinant Arabidopsis thaliana Peptide methionine sulfoxide reductase A2 (MRSA2)

## Product Gene Name

MRSA2 recombinant protein

## Product Synonym Gene Name

MRSA2

## Purity

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

## Sequence

MDSSLKTQEP QVVETSPSPV AQEPPQVADK PAIVPSPIAQ EPDNDVPAPG NEFAEFAAGC FWGVELAFQR  
IPGVTVTEVG YTHGISHNPS YEDVCTNTTN HAEVVRVQYD PKECTYETLL DLFWSRHNPT TLNRQGELLG  
AQYRSGIYFY TPEQEKLARE SLEKEQKKLE DKIVTEILPA KKFYKAEYH QQYLVKGMH GNAQSPAKSC  
KDPIRCYG

## Sequence Positions

1-218, Full length protein

## Format

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

## Host

E Coli or Yeast or Baculovirus or Mammalian Cell

## Molecular Weight

24,434 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

Peptide methionine sulfoxide reductase

## NCBI Accession #

NP\_196363.1

## NCBI GI #

15240795

## NCBI GenBank Nucleotide #

NM\_120828.4

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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## NCBI GeneID

830637

## NCBI Official Full Name

peptidemethionine sulfoxide reductase 2

## NCBI Official Symbol

PMSR2

## NCBI Official Synonym Symbols

ARABIDOPSIS THALIANA METHIONINE SULFOXIDE REDUCTASE 2; ATMSRA2; peptidemethionine sulfoxide reductase 2; T2I1.170; T2I1\_170

## NCBI Protein Information

peptidemethionine sulfoxide reductase 2

## NCBI Summary

ubiquitous enzyme that repairs oxidatively damaged proteins. Methionine sulfoxide reductase activity. Mutant lacking reductase activity showed increased protein oxidation, nitration and glycation of specific amino acid residues during darkness.

## UniProt Gene Name

MRSA2

## UniProt Synonym Gene Names

PMSR2; AtMSRA2; Peptide Met(O) reductase

## UniProt Protein Name

Peptide methionine sulfoxide reductase A2

## UniProt Synonym Protein Names

Peptide-methionine (S)-S-oxide reductase; Peptide Met(O) reductase; Protein-methionine-S-oxide reductase

## UniProt Primary Accession #

Q9LY15

## UniProt Related Accession #

Q9LY15

## UniProt Comments

Catalyzes the reduction of methionine sulfoxide (MetSO) to methionine in proteins. Plays a protective role against oxidative stress by restoring activity to proteins that have been inactivated by methionine oxidation. Prevents cellular oxidative damage in long nights. MSRA family specifically reduces the MetSO S-enantiomer.

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