(+)-neomenthol dehydrogenase (SDR1), Recombinant Protein

CD BioSciences
Plant Protein

Cat *RP01062*

Size *0.02 mg (E-Coli)/ 0.02 mg (Yeast)/ 0.1 mg (E-Coli)/ 0.1 mg (Yeast)/ 0.02 mg (Baculovirus)/ 0.02 mg (Mammalian-Cell)/ 0.1 mg (Baculovirus)/ 1 mg (E-Coli)/ 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 (+)-neomenthol dehydrogenase (SDR1)

Product Gene Name
SDR1 recombinant protein

Product Synonym Gene Name
SDR1

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

Sequence
MAEETPRYAV VTGANRGIGF EICRQLASEG IRVVLTSRDE NRGLEAVETL KKELEISDQS LLFHQLDVAD PASITSLAEF VKTQFGKLDI LVNNAGIGGI ITDAEALRAG AGKEGFKWDE IITETYELTE ECIKINYYGP KRMCEAFIPL LKLSDSPRIV NVSSSMGQLK NVLNEWAKGI LSDAENLTEE RIDQVINQLL NDFKEGTVKE KNWAKFMSAY VVSKASLNGY TRVLAKKHPE FRVNAVCPGF VKTDMNFKTG VLSVEEGASS PVRLALLPHQ ETPSGCFFSR KQVSEF

Sequence Positions
1-296, 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
32,803 Da

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

NCBI Accession
NP_191681.1

NCBI GI
15233062

NCBI GenBank Nucleotide
NM_115986.4

NCBI GeneID
825294

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NCBI Official Full Name
NAD(P)-binding Rossmann-fold superfamily protein

NCBI Official Symbol
SDR1

NCBI Official Synonym Symbols
short-chain dehydrogenase/reductase 1

NCBI Protein Information
NAD(P)-binding Rossmann-fold superfamily protein

NCBI Summary
CytADR/SDR1 is an aldehyde reductase that catalyzes the reduction of the aldehyde carbonyl groups on alpha,beta-unsaturated aldehydes with more than 5 carbons in vitro. It can also act on menthone and neomenthol in vitro, but these do not represent likely endogenous activities of this enzyme in planta. GFP-tagged CytADR appears to localize to the cytosol where it likely plays a role in detoxifying reactive carbonyls. sdr1 mutants have altered responses to pathogens.

UniProt Gene Name
SDR1

UniProt Synonym Gene Names
AtSDR1

UniProt Protein Name
(+)-neomenthol dehydrogenase

UniProt Synonym Protein Names
Menthone:neomenthol reductase; Short-chain dehydrogenase/reductase 1; AtSDR1

UniProt Primary Accession
Q9M2E2

UniProt Related Accession
Q9M2E2

UniProt Comments
Aldehyde reductase that catalyzes the reduction of the aldehyde carbonyl groups on saturated and alpha,beta-unsaturated aldehydes with more than 5 carbons (PubMed:21169366). Involved in basal resistance against pathogens.

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