

Alcohol Dehydrogenase 1 (ADH1), Recombinant Protein

Cat *RP01059*

Size 0.01 mg/ 0.05 mg/ 0.1 mg/ 0.2 mg/ 0.5 mg/ 1 mg/ 5 mg/ 5x5 mg

Species

Arabidopsis halleri

Full Product Name

Recombinant Alcohol Dehydrogenase 1 (ADH1)

Product Gene Name

ADH1 recombinant protein

Purity

> 95%

Sequence

Residues: Lys169~Arg 370 (Accession # P07327), with two N-terminal Tags, His-tag and T7-tag. The target protein is fused with two N-terminal Tags, His-tag and T7-tag, its sequence is listed below. MGSSHHHHHH SSGLVPRGSH MASMTGGQQM GRGSEF- KV CLIGCGFSTG YGSAVNVAKV TPGSTCAVFG LGGVGLSAIM GCKAAGAARI IAVDINKDKF AKAKELGATE CINPQDYKKP IQEVLKEMTD GGVDFFSEVI GRLDTMMASL LCCHEACGTS VIVGVPPDSQ NLSMNPMLLL TGRTWKGAIL GGFKSKECVP KLVADFMAKK FSLDALITHV LPFEKINEGF DLLHSGKSIR

Chromosome Location

Chromosome: 1; NC_003070.9 (28975394..28977417). Location: chromosome: 1

Format

Supplied as lyophilized form in PBS, pH 7.4, containing 5% sucrose, 0.01% sarcosyl.

Host

E. coli

Molecular Weight

25.1 kDa

Storage

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months. Stability Test: The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.

Protein Family

Alcohol dehydrogenase

NCBI Accession

NP_177837.1

NCBI GI

15223838

NCBI GenBank Nucleotide

NM_106362.2

FOR RESEARCH OR FURTHER MANUFACTURING USE ONLY

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NCBI GeneID

844047

NCBI Official Full Name

alcohol dehydrogenase 1

NCBI Official Symbol

ADH1

NCBI Official Synonym Symbols

ADH; ADH1; ALCOHOL DEHYDROGENASE; alcohol dehydrogenase 1; ARABIDOPSIS THALIANA ALCOHOL DEHYDROGENASE; ATADH; ATADH1; F22K20.19; F22K20_19

NCBI Protein Information

alcohol dehydrogenase 1

NCBI Summary

Catalyzes the reduction of acetaldehyde using NADH as reductant. Requires zinc for activity. Dimer. Anaerobic response polypeptide (ANP). Fermentation. The protein undergoes thiolation following treatment with the oxidant tert-butylhydroperoxide.

UniProt Gene Name

ADH1

UniProt Synonym Gene Names

ADH

UniProt Protein Name

Alcohol dehydrogenase class-P

UniProt Entry Name

ADH1_ARATH

UniProt Primary Accession

P06525

UniProt Secondary Accession

O04080; O04713; O04717; O04868; O23821; Q8LA61; Q94AY6; Q9CAZ2; Q9CAZ3

UniProt Related Accession

P06525

UniProt Comments

Catalytic activity: An alcohol + NAD⁺ = an aldehyde or ketone + NADH. Cofactor: Binds 2 zinc ions per subunit. Subunit structure: Homodimer. Subcellular location: Cytoplasm. Induction: By 2,4-dichlorophenoxyacetic acid in Arabidopsis as well as in maize. Miscellaneous: Unlike most plants, Arabidopsis contains only one gene for ADH. Sequence similarities: Belongs to the zinc-containing alcohol dehydrogenase family. Class-P subfamily.

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