

Product information



CDA, 1-146aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0739

Full name: Cytidine deaminase

NCBI Accession No.: AAH54036

Synonyms: CDD, Cytidine aminohydrolase, Cytosine nucleoside deaminase

Description: CDA (Cytidine deaminase) is an enzyme that scavenges exogenous and endogenous cytidine and 2'-deoxycytidine for UMP synthesis. This protein is one of several deaminases responsible for maintaining the cellular pyrimidine pool. The protein also catalyzes the deamination of chemotherapeutic cytosine nucleoside analogs such as Ara-C and 5-azacytidine, which results in the loss of their cytotoxic and antitumor function. It can form homotetramers and is mainly expressed in granulocytes. Recombinant human CDA protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

Form: Liquid. In 20 mM Tris-HCl Buffer (pH 8.0) containing 1 mM DTT,

2 mM EDTA, 100 mM NaCl, 40% Glycerol

Molecular Weight: 18.3 kDa(166aa), confirmed by MALDI-TOF

Purity: > 90% by SDS - PAGE

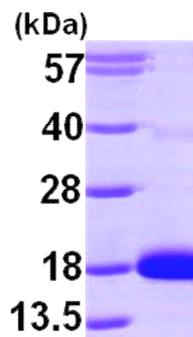
Concentration: 0.5 mg/ml (determined by Bradford assay)

Biological activity: Specific activity:> 3.5 unit/mg.

One unit of activity was defined as the amount required to deaminate 1.0 umole of cytidine per min at pH 7.5 at 25C.

Sequences of amino acids:

MGSSHHHHHH SSGLVPRGSH MAQKRPACTL KPECVQQLLV CSQEAKQSAY CPYSHFPVGA ALLTQEGRIF KGCNIEENACY PLGICAERTA I QKAVSEGYK DFRAIAIASD MQDDFISPCG ACRQVMREFG TNWPVYMTKP DGTYIVMTVQ ELLPSSFGPE DLQKTQ



Activity Assay:

1. Prepare 150 ul assay buffer. The final concentrations are 50 mM Tris-HCl (pH 7.5), 100 uM cytidine.
2. Add 50 ul recombinant CDA protein with concentration 0.25 ug in assay buffer.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.

Manufactured for:

Immuno-Biological Laboratories, Inc. (IBL-America)
8201 Central Ave. NE, Suite P, Minneapolis, Minnesota 55432, USA
Phone: (888) 523-1246 Fax: (763) 780-2988
Email: info@ibl-america.com Web: www.ibl-america.com



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3. Mix by inversion and records the decrease at A280nm for approximately 5 minutes.

Cytidine millimolar extinction coefficient:

5.27 (mM⁻¹.cm⁻¹)

100 uM / 50 mM Tris-HCl (pH 7.5)

PerkinElmer VICTOR X3 / A280nm

UV Plate (Costar, Cat. No. 3635)

Cytidine (Sigma, Cat. No. C4654)

General references:

Evrard A., et al. (2010) *Ther Drug Monit.* 32(1):53-60.

Seeberg EC., et al. (1998) *Blood.* 91(11):4127-35.

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C.

Avoid repeated freezing and thawing cycles.

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