

# CDD (C-16): sc-49612

## BACKGROUND

Cytidine deaminase (CDD or CDA) is a member of the cytidine and deoxycytidylate deaminase family of proteins. CDD 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. Ara-C is used in the treatment of acute myeloid leukemia (AML), and the antileukemic activity of the drug is contingent on phosphorylation by deoxycytidine kinase (DCK). Resistance to Ara-C is a major determinant of unsuccessful AML treatment, the failure of which has been attributed to a DCK functional defect and increased CDD activity. CDD also scavenges endogenous and exogenous cytidine and 2'-deoxycytidine for UMP synthesis. CDD can form homotetramers and is mainly expressed in granulocytes.

## CHROMOSOMAL LOCATION

Genetic locus: CDA (human) mapping to 1p36.12; Cda (mouse) mapping to 4 D3.

## SOURCE

CDD (C-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CDD of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-49612 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

CDD (C-16) is recommended for detection of CDD (Cytidine deaminase) of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CDD (C-16) is also recommended for detection of CDD (cytidine deaminase) in additional species, including bovine and porcine.

Suitable for use as control antibody for CDD siRNA (h): sc-60341, CDD siRNA (m): sc-60342, CDD shRNA Plasmid (h): sc-60341-SH, CDD shRNA Plasmid (m): sc-60342-SH, CDD shRNA (h) Lentiviral Particles: sc-60341-V and CDD shRNA (m) Lentiviral Particles: sc-60342-V.

Molecular Weight of CDD monomer: 16 kDa.

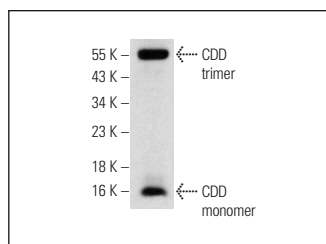
Molecular Weight of CDD homotetramer: 50-66 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209.

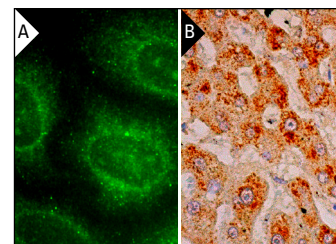
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

## DATA



CDD (C-16): sc-49612. Western blot analysis of CDD expression in human PBL whole cell lysate.



CDD (C-16): sc-49612. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes (B).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
Satisfaction  
Guaranteed

Try **CDD (D-5): sc-365292**, our highly recommended monoclonal alternative to CDD (C-16).