

CDD (FL-146): sc-134754

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.

REFERENCES

1. Teng, Y.S., et al. 1975. Cytidine deaminase: a new genetic polymorphism demonstrated in human granulocytes. *Am. J. Hum. Genet.* 27: 492-497.
2. Kühn, K., et al. 1993. Cloning of a functional cDNA for human cytidine deaminase (CDD) and its use as a marker of monocyte/macrophage differentiation. *Biochem. Biophys. Res. Commun.* 190: 1-7.

CHROMOSOMAL LOCATION

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

SOURCE

CDD (FL-146) is a rabbit polyclonal antibody raised against amino acids 1-146 representing full length 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.

APPLICATIONS

CDD (FL-146) is recommended for detection of CDD 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CDD (FL-146) is also recommended for detection of CDD in additional species, including equine.

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.

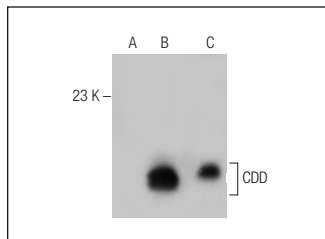
Molecular Weight of CDD homotetramer: 50-66 kDa.

Positive Controls: CDD (h): 293T Lysate: sc-116573, DU 145 cell lysate: sc-2268 or 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CDD (FL-146): sc-134754. Western blot analysis of CDD expression in non-transfected 293T: sc-117752 (A), human CDD transfected 293T: sc-116573 (B) and DU 145 (C) whole cell lysates.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at 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 (FL-146).