Cytidine deaminase (CDD or CD A) is a member of the cytidine and deoxy -
cytidylate deaminase family of proteins. CDD catalyzes the deamination of
chemotherapeutic cytosine nucleoside analogs such as Ara-C and 5-azacy-
tidine, 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 anti-
leukemic activity of the drug is contingent on phosphorylation by deoxycyti-
dine kinase (DCK). Resistance to Ara-C is a major determinant of unsucces-
ful AML treatment, the failure of which has been attributed to a DCK func-
tional defect and increased CDD activity. CDD also scavenges endogenous
cytidine and 2'-deoxycytidine for UMP synthesis. CDD can form
homotetramers and is mainly expressed in granulocytes.

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

CDD (D-5) is a mouse monoclonal antibody raised against amino acids 1-146
representing full length CDD of human origin. Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1%
sodium azide and 0.1% gelatin.

CDD (D-5) is available conjugated to agarose (sc-365292 AC), 500 µg/0.25 ml
agarose in 1 ml, for IP; to HRP (sc-365292 HRP), 200 µg/ml, for WB, IHC, and
ELISA; to either phycoerythrin (sc-365292 PE), fluorescein (sc-365292 FITC),
Alexa Fluor® 488 (sc-365292 AF488), Alexa Fluor® 546 (sc-365292 AF546),
Alexa Fluor® 594 (sc-365292 AF594) or Alexa Fluor® 647 (sc-365292 AF647),
200 µg/ml, for WB (RGB), IF, IHC, and FCM; and to either Alexa Fluor® 680
(sc-365292 AF680) or Alexa Fluor® 790 (sc-365292 AF790), 200 µg/ml, for
Near-Infrared (NIR) WB, IF, and FCM.

CDD (D-5) is recommended for detection of CDD of mouse, rat and human
origin by Western Blotting (starting dilution 1:100, 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).

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 or DU 145 cell lysate:
sc-2268.

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz
Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM
Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent:
sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunopre-
cipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE:
sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium:
sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immuno-
histochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982
and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

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

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