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Product Information

Monoclonal Anti-CDA,Clone CDA-40
produced in mouse, purified immunoglobulin

Catalog Number **SAB4200636**

Product Description

Monoclonal Anti-CDA (mouse IgG2a isotype) is derived from the hybridoma CDA-40 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with a synthetic peptide corresponding to an internal sequence of human CDA (GeneID: 978), conjugated to KLH. The corresponding sequence is identical in monkey but differs by one amino acid in rat and mouse CDA. The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents (Sigma ISO-2). The antibody is purified from culture supernatant of hybridoma cells grown in a bioreactor.

Monoclonal Anti-CDA recognizes human CDA. The product may be used in several immunochemical techniques including immunoblotting (~16 kDa), flow cytometry and immunocytochemistry. Detection of the CDA band by immunoblotting is specifically inhibited by the immunizing peptide.

CDA (Cytidine deaminase) also known as Cytidine aminohydrolase or CDD, is an intracellular enzyme of the pyrimidine salvage pathways that catalyzes the deamination of cytidine and deoxycytidine to uridine and deoxyuridine, respectively. The enzyme is active only as an intact tetramer, since three different monomers concur to the formation of each of the four active sites.[1] CDA also catalyzes the deamination and thus degradation of cytosine nucleoside analogues such as ARA-C and 5-AZA-CdR used in chemotherapy, leading to the loss of their pharmacological activity.[2-3] CDA inhibitors such as tetrahydrouridine (THU) are particular interesting therapeutically for use in combination with chemotherapy drugs in patients with leukemia, to enhance drugs activity.[3-4]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For extended storage, freeze at –20 °C in working aliquots. Repeated freezing and thawing or storage in "frost-free" freezers is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.5-1 µg/mL is recommended using whole extracts of HeLa cells.

Immunofluorescence: a working concentration of 4-8 µg/mL is recommended using HeLa cells.

Flow Cytometry: a working dilution of 5-10 µg /test is recommended using HeLa cells.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining optimal working dilutions by titration. Use of sensitive film is recommended.

References

1. Costanzi, S., et al., *ChemMedChem.*, **6**, 1452–1458 (2011).
2. Micozzi, D., et al., *Int. J. Biol. Macromol.,* **47**, 471–482 (2010).
3. Ludek, O.R., et al., *Org. Chem.*, **74**, 6212–6223 (2009).
4. Laliberté, J., et al., *Cancer Chemother. Pharmacol.*, **30**, 7-11 (1992).

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