

ADO (D-13): sc-162493

BACKGROUND

Human thiol dioxygenases include ADO (2-aminoethanethiol (cysteamine) dioxygenase) and CDO (cysteine dioxygenase). ADO adds two oxygen atoms to free cysteamine to form hypotaurine, whereas CDO adds two oxygen atoms to free cysteine. Encoded by a gene that maps to human chromosome 10q21.3, ADO is a 270 amino acid protein that is ubiquitously expressed, with highest levels in brain, heart and skeletal muscle. ADO is responsible for endogenous cysteamine dioxygenase activity and participates in metal ion binding, with iron as a cofactor. Overexpression of ADO in HepG2/C3A cells increases production of hypotaurine from cysteamine. Conversely, reduced expression of ADO decreases hypotaurine production.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ADO (human) mapping to 10q21.3; Ado (mouse) mapping to 10 B5.1.

SOURCE

ADO (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of ADO 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-162493 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ADO (D-13) is recommended for detection of ADO 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).

Suitable for use as control antibody for ADO siRNA (h): sc-90328, ADO siRNA (m): sc-140885, ADO shRNA Plasmid (h): sc-90328-SH, ADO shRNA Plasmid (m): sc-140885-SH, ADO shRNA (h) Lentiviral Particles: sc-90328-V and ADO shRNA (m) Lentiviral Particles: sc-140885-V.

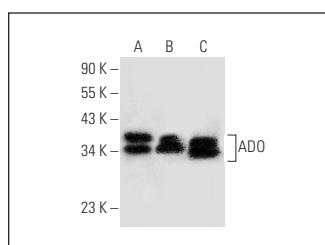
Molecular Weight of ADO: 28 kDa.

Positive Controls: human fetal brain tissue extract, NIH/3T3 whole cell lysate: sc-2210 or Neuro-2A whole cell lysate: sc-364185.

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.

DATA



ADO (D-13): sc-162493. Western blot analysis of ADO expression in human fetal brain tissue extract (A) and NIH/3T3 (B) and Neuro-2A (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.