

DDAH II (H-85): sc-32859

BACKGROUND

DDAH, a dimethylarginine dimethylaminohydrolase, hydrolyzes dimethyl arginine (ADMA) and monomethyl arginine (MMA), both inhibitors of nitric oxide synthases, and may be involved in *in vivo* modulation of nitric oxide production. Impairment of DDAH causes ADMA accumulation and a reduction in cGMP generation. DDAH II, the predominant DDAH isoform in endothelial cells, facilitates the induction of nitric oxide synthesis by all-*trans*-Retinoic acid (atRA). DDAH proteins are highly expressed in colon, kidney, stomach and liver tissues.

REFERENCES

1. Nakagomi, S., et al. 1999. Dimethylarginine dimethylaminohydrolase (DDAH) as a nerve-injury-associated molecule: mRNA localization in the rat brain and its coincident up-regulation with neuronal NO synthase (nNOS) in axotomized motoneurons. *Eur. J. Neurosci.* 11: 2160-2166.
2. Knipp, M., et al. 2001. Structural and functional characterization of the Zn(II) site in dimethylargininase-1 (DDAH-1) from bovine brain. Zn(II) release activates DDAH-1. *J. Biol. Chem.* 276: 40449-40456.

CHROMOSOMAL LOCATION

Genetic locus: DDAH2 (human) mapping to 6p21.33; Ddah2 (mouse) mapping to 17 B1.

SOURCE

DDAH II (H-85) is a rabbit polyclonal antibody raised against amino acids 1-85 (deletion 7-27) mapping at the N-terminus of DDAH II 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

DDAH II (H-85) is recommended for detection of DDAH II 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).

Suitable for use as control antibody for DDAH II siRNA (h): sc-40474, DDAH II siRNA (m): sc-40475, DDAH II shRNA Plasmid (h): sc-40474-SH, DDAH II shRNA Plasmid (m): sc-40475-SH, DDAH II shRNA (h) Lentiviral Particles: sc-40474-V and DDAH II shRNA (m) Lentiviral Particles: sc-40475-V.

Molecular Weight of DDAH II: 30 kDa.

Positive Controls: mouse small intestine extract: sc-364252 or DU 145 cell lysate: sc-2268.

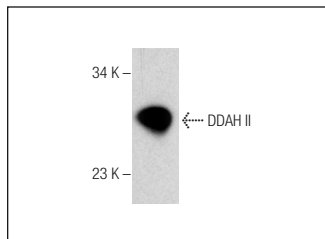
RESEARCH USE

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

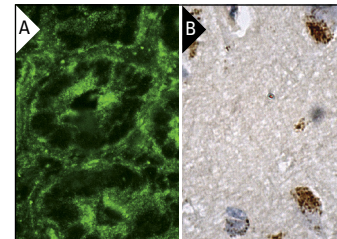
STORAGE

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

DATA



DDAH II (H-85): sc-32859. Western blot analysis of DDAH II expression in mouse small intestine tissue extract.



DDAH II (H-85): sc-32859. Immunofluorescence staining of normal mouse intestine frozen section showing cytoplasmic staining (A). Immunohistochemistry staining of formalin fixed, paraffin-embedded human brain tissue showing cytoplasmic staining of neuronal cells (B).

SELECT PRODUCT CITATIONS

1. Amrouni, D., et al. 2011. Cerebral changes occurring in arginase and dimethylarginine dimethylaminohydrolase (DDAH) in a rat model of sleeping sickness. *PLoS ONE* 6: e16891.
2. Moningka, N.C., et al. 2011. Protective actions of nebivolol on chronic nitric oxide synthase inhibition-induced hypertension and chronic kidney disease in the rat: a comparison with angiotensin II receptor blockade. *Nephrol. Dial. Transplant.* 27: 913-920.
3. Novella, S., et al. 2012. Estradiol, acting through estrogen receptor α , restores dimethylarginine dimethylaminohydrolase activity and nitric oxide production in oxLDL-treated human arterial endothelial cells. *Mol. Cell. Endocrinol.* 365: 11-16.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.



Try **DDAH II (3E3): sc-293229**, our highly recommended monoclonal alternative to DDAH II (H-85).