

DDAH I (H-70): sc-292503

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

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- Leiper, J., et al. 2002. S-nitrosylation of dimethylarginine dimethylaminohydrolase regulates enzyme activity: further interactions between nitric oxide synthase and dimethylarginine dimethylaminohydrolase. *Proc. Natl. Acad. Sci. USA* 99: 13527-13532.
- Lin, K.Y., et al. 2002. Impaired nitric oxide synthase pathway in diabetes mellitus: role of asymmetric dimethylarginine and dimethylaminohydrolase. *Circulation* 106: 987-992.
- Achan, V., et al. 2002. All-*trans*-retinoic acid increases nitric oxide synthesis by endothelial cells: a role for the induction of dimethylaminohydrolase. *Circ. Res.* 90: 764-769.
- Knipp, M., et al. 2003. Zn(II)-free dimethylargininase I (DDAH I) is inhibited upon specific Cys-S-nitrosylation. *J. Biol. Chem.* 278: 3410-3416.

CHROMOSOMAL LOCATION

Genetic locus: DDAH1 (human) mapping to 1p22.3; Ddah1 (mouse) mapping to 3 H2.

SOURCE

DDAH I (H-70) is a rabbit polyclonal antibody raised against amino acids 167-236 mapping within an internal region of DDAH I 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.

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.

APPLICATIONS

DDAH I (H-70) is recommended for detection of DDAH I 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).

DDAH I (H-70) is also recommended for detection of DDAH I in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for DDAH I siRNA (h): sc-105276, DDAH I siRNA (m): sc-142914, DDAH I shRNA Plasmid (h): sc-105276-SH, DDAH I shRNA Plasmid (m): sc-142914-SH, DDAH I shRNA (h) Lentiviral Particles: sc-105276-V and DDAH I shRNA (m) Lentiviral Particles: sc-142914-V.

Molecular Weight of DDAH I: 31 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

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.

PROTOCOLS

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



Try **DDAH I (D-6): sc-514841** or **DDAH I (C-4): sc-271337**, our highly recommended monoclonal alternatives to DDAH I (H-70).