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Goat Anti-DDAH2 Antibody

Peptide-affinity purified goat antibody

Catalog # AF1309a

Specification

Goat Anti-DDAH2 Antibody - Product Information

Application	**WB, E**
Primary Accession	O95865
Other Accession	NP_039268, 23564
Reactivity	**Human, Mouse**
Predicted	**Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**29644**

Goat Anti-DDAH2 Antibody - Additional Information

Gene ID 23564

Other Names
N(G), N(G)-dimethylarginine dimethylaminohydrolase 2, DDAH-2, Dimethylarginine dimethylaminohydrolase 2, 3.5.3.18, DDAHII, Dimethylargininase-2, Protein G6a, S-phase protein, DDAH2, DDAH, G6A, NG30

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Goat Anti-DDAH2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-DDAH2 Antibody - Protein Information

Name DDAH2 (HGNC:2716)

Synonyms DDAH, G6A, NG30

Function
Putative hydrolase with unknown substrate (Probable). Does not hydrolyze N(G),N(G)-dimethyl-L-arginine (ADMA) which acts as an inhibitor of NOS (PubMed:21493890, PubMed:37296100). In endothelial cells, induces expression of vascular endothelial growth factor (VEGF) via phosphorylation of the transcription factor SP1 by PKA in a process that is independent of NO and NO synthase (By similarity). Similarly, enhances pancreatic insulin secretion through SP1-mediated transcriptional up-regulation of secretagogin/SCGN, an insulin vesicle docking protein (By similarity). Upon viral infection, relocates to mitochondria where it promotes mitochondrial fission through activation of DNM1L leading to the inhibition of innate response activation mediated by MAVS (PubMed:33850055).

Cellular Location
Cytoplasm. Mitochondrion Note=Translocates from cytosol to mitochondrion upon IL1B stimulation in chondrocytes

Tissue Location
Detected in heart, placenta, lung, liver, skeletal muscle, kidney and pancreas, and at very low levels in brain

Goat Anti-DDAH2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Goat Anti-DDAH2 Antibody - Images

AF1309a (0.1 µg/ml) staining of Human Lung lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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Goat Anti-DDAH2 Antibody - Background

This gene belongs to the dimethylarginine dimethylaminohydrolase (DDAH) gene family. The encoded enzyme plays a role in nitric oxide generation by regulating cellular concentrations of methylarginines, which in turn inhibit nitric oxide synthase activity.

Goat Anti-DDAH2 Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Sequence variation in DDAH1 and DDAH2 genes is strongly and additively associated with serum ADMA concentrations in individuals with type 2 diabetes. Abhary S, et al. PLoS One, 2010 Mar 1. PMID 20209122.
Circulating methylarginine levels and the decline in renal function in patients with chronic kidney disease are modulated by DDAH1 polymorphisms. Caplin B, et al. Kidney Int, 2010 Mar. PMID 20010544.
Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.
High-density SNP screening of the major histocompatibility complex in systemic lupus erythematosus demonstrates strong evidence for independent susceptibility regions. Barcellos LF, et al. PLoS Genet, 2009 Oct. PMID 19851445.