

# AGXT2L2 (H-70): sc-134651

## BACKGROUND

Members of the class-III pyridoxal-phosphate-dependent aminotransferase family, such as AGXT2, catalyze the conversion of glyoxylate to glycine using L-alanine as the amino donor. AGXT2 protects from asymmetric dimethyl-arginine (ADMA)-induced inhibition in nitric oxide (NO) production. Elevated blood concentrations of ADMA, a methyl derivative of the amino acid arginine and an endogenous inhibitor of nitric oxide (NO) synthase, is produced by the physiological degradation of methylated proteins and is found in association with diabetes, hypertension, congestive heart failure and atherosclerosis. AGXT2L2 (alanine-glyoxylate aminotransferase 2-like 2) is a 450 amino acid pyridoxal phosphate that exists as a homotetramer. Belonging to the class-III pyridoxal-phosphate-dependent aminotransferase family, AGXT2L2 localizes to the mitochondria and exists as three alternatively spliced isoforms. Encoded by a gene located on human chromosome 5q35.3, AGXT2L2 may have similar functions as AGXT2.

## REFERENCES

- Dixon, M.J., et al. 1991. The gene for Treacher Collins syndrome maps to the long arm of chromosome 5. *Am. J. Hum. Genet.* 49: 17-22.
- Watts, R.W. 1992. Alanine glyoxylate aminotransferase deficiency: biochemical and molecular genetic lessons from the study of a human disease. *Adv. Enzyme Regul.* 32: 309-327.
- Lee, I.S., et al. 1995. Molecular cloning and sequencing of a cDNA encoding alanine-glyoxylate aminotransferase 2 from rat kidney. *J. Biochem.* 117: 856-862.
- Liepman, A.H. and Olsen, L.J. 2001. Peroxisomal alanine: glyoxylate aminotransferase (AGT1) is a photorespiratory enzyme with multiple substrates in *Arabidopsis thaliana*. *Plant J.* 25: 487-498.
- Liepman, A.H. and Olsen, L.J. 2003. Alanine aminotransferase homologs catalyze the glutamate:glyoxylate aminotransferase reaction in peroxisomes of *Arabidopsis*. *Plant Physiol.* 131: 215-227.
- Baker, P.R., et al. 2004. Glycolate and glyoxylate metabolism in HepG2 cells. *Am. J. Physiol., Cell Physiol.* 287: C1359-C1365.

## CHROMOSOMAL LOCATION

Genetic locus: AGXT2L2 (human) mapping to 5q35.3; Agxt2l2 (mouse) mapping to 11 B1.3.

## SOURCE

AGXT2L2 (H-70) is a rabbit polyclonal antibody raised against amino acids 381-450 mapping at the C-terminus of AGXT2L2 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.

## APPLICATIONS

AGXT2L2 (H-70) is recommended for detection of AGXT2L2 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).

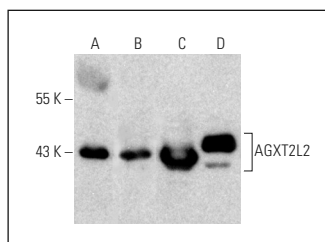
Suitable for use as control antibody for AGXT2L2 siRNA (h): sc-91684, AGXT2L2 siRNA (m): sc-140913, AGXT2L2 shRNA Plasmid (h): sc-91684-SH, AGXT2L2 shRNA Plasmid (m): sc-140913-SH, AGXT2L2 shRNA (h) Lentiviral Particles: sc-91684-V and AGXT2L2 shRNA (m) Lentiviral Particles: sc-140913-V.

Molecular Weight (predicted) of AGXT2L2: 50 kDa.

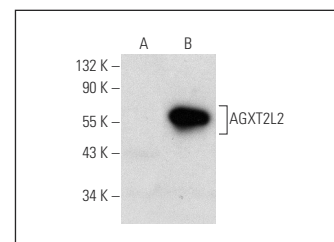
Molecular Weight (observed) of AGXT2L2: 44 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, mouse lung extract: sc-2390 or mouse thymus extract: sc-2406.

## DATA



AGXT2L2 (H-70): sc-134651. Western blot analysis of AGXT2L2 expression in mouse lung (A) and mouse thymus (B) tissue extracts and LADMAC (C) and KNRK (D) whole cell lysates.



AGXT2L2 (H-70): sc-134651. Western blot analysis of AGXT2L2 expression in non transfected (A) and human AGXT2L2 transfected (B) HEK293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **AGXT2L2 (C-11): sc-365670**, our highly recommended monoclonal alternative to AGXT2L2 (H-70).