

# AGXT2L1 (T-13): sc-138094

## 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 dimethylarginine (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. AGXT2L1 (alanine-glyoxylate aminotransferase 2-like 1) is a 499 amino acid pyridoxal phosphate that exists as a homotetramer. Belonging to the class-III pyridoxal-phosphate-dependent aminotransferase family, AGXT2L1 localizes to the mitochondria and exists as two alternatively spliced isoforms. Encoded by a gene located on human chromosome 4q25, AGXT2L1 may have similar functions as AGXT2.

## REFERENCES

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2. McQuillin, A., et al. 2007. A microarray gene expression study of the molecular pharmacology of lithium carbonate on mouse brain mRNA to understand the neurobiology of mood stabilization and treatment of bipolar affective disorder. *Pharmacogenet. Genomics* 17: 605-617.
3. Shao, L. and Vawter, M.P. 2008. Shared gene expression alterations in schizophrenia and bipolar disorder. *Biol. Psychiatry* 64: 89-97.
4. Patarini, R., et al. 2008. Distinct mechanisms of 1-methyl-4-phenyl-1,2,3,6-tetrahydropyrimidine resistance revealed by transcriptome mapping in mouse striatum. *Neuroscience* 155: 1174-1194.
5. Thomas, E.A., et al. 2008. The HDAC inhibitor 4b ameliorates the disease phenotype and transcriptional abnormalities in Huntington's disease transgenic mice. *Proc. Natl. Acad. Sci. USA* 105: 15564-15569
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## CHROMOSOMAL LOCATION

Genetic locus: AGXT2L1 (human) mapping to 4q25.

## SOURCE

AGXT2L1 (T-13) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of AGXT2L1 of human origin.

## STORAGE

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

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-138094 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

AGXT2L1 (T-13) is recommended for detection of AGXT2L1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with AGXT2L2.

Suitable for use as control antibody for AGXT2L1 siRNA (h): sc-89081, AGXT2L1 shRNA Plasmid (h): sc-89081-SH and AGXT2L1 shRNA (h) Lentiviral Particles: sc-89081-V.

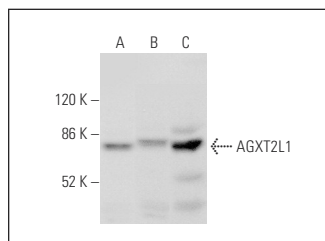
Molecular Weight of AGXT2L1: 56 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, MOLT-4 cell lysate: sc-2233 or SK-N-MC cell lysate: sc-2237.

## 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.

## DATA



AGXT2L1 (T-13): sc-138094. Western blot analysis of AGXT2L1 expression in Jurkat (A), MOLT-4 (B) and SK-N-MC (C) whole cell lysates.

## RESEARCH USE

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