SANTA CRUZ BIOTECHNOLOGY, INC.

AGXT2L2 (C-11): sc-365670

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 derivate 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

1. 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.
2. 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.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: PHYKPL (human) mapping to 5q35.3.

SOURCE

AGXT2L2 (C-11) is a mouse monoclonal antibody raised against amino acids 381-450 mapping at the C-terminus of AGXT2L2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

AGXT2L2 (C-11) is available conjugated to agarose (sc-365670 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365670 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365670 PE), fluorescein (sc-365670 FITC), Alexa Fluor® 488 (sc-365670 AF488), Alexa Fluor® 546 (sc-365670 AF546), Alexa Fluor® 594 (sc-365670 AF594) or Alexa Fluor® 647 (sc-365670 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365670 AF680) or Alexa Fluor® 790 (sc-365670 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

AGXT2L2 (C-11) is recommended for detection of AGXT2L2 of human origin by Western Blotting (starting dilution 1:100, 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 shRNA Plasmid (h): sc-91684-SH and AGXT2L2 shRNA (h) Lentiviral Particles: sc-91684-V.

Molecular Weight (predicted) of AGXT2L2: 50 kDa.

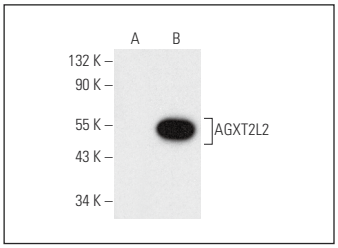
Molecular Weight (observed) of AGXT2L2: 44 kDa.

Positive Controls: human AGXT2L2 transfected HEK293T whole cell lysate.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



AGXT2L2 (C-11): sc-365670. Western blot analysis of AGXT2L2 expression in non transfected (**A**) and human AGXT2L2 transfected (**B**) HEK293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Chiang, C.F., et al. 2016. Endocytic pathways used by andes virus to enter primary human lung endothelial cells. PLoS ONE 11: e0164768.
2. Pettinato, G., et al. 2019. Generation of fully functional hepatocyte-like organoids from human induced pluripotent stem cells mixed with endothelial cells. Sci. Rep. 9: 8920.

RESEARCH USE

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