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SANTA CRUZ BIOTECHNOLOGY, INC.

Glyoxalase II (m2): 293T Lysate: sc-120531

BACKGROUND

The glyoxal pathway plays a role in the detoxification of glucose degradation products (GDP). Glyoxalase I and Glyoxalase II (also designated hydroxyacyl glutathione hydrolase or HAGH) are members of the glyoxalase family. The Glyoxalase II enzyme is a thiolesterase that catalyzes the hydrolysis of S-D-lactoyl-glutathione to form reduced glutathione and D-lactic acid. It exists only as a monomer and binds two zinc ions per subunit. Glyoxalase II contains 260 amino acids. It is detected in the mitochondria and cytosol of mammals. Both Glyoxalase I and Glyoxalase II are detected at a higher activity level in breast cancer tissues than with matched unaffected tissues. This suggests that glyoxalase inhibitor drugs may be effective in the treatment of cancer.

REFERENCES

1. Ridderström, M., Saccucci, F., Hellman, U., Bergman, T., Principato, G. and Mannervik, B. 1996. Molecular cloning, heterologous expression, and characterization of human Glyoxalase II. J. Biol. Chem. 271: 319-323.
2. Cameron, A.D., Ridderström, M., Olin, B. and Mannervik, B. 1999. Crystal structure of human Glyoxalase II and its complex with a glutathione thiolester substrate analogue. Structure 7: 1067-1078.
3. Rulli, A., Carli, L., Romani, R., Baroni, T., Giovannini, E., Rosi, G. and Talesa, V. 2001. Expression of Glyoxalase I and II in normal and breast cancer tissues. Breast Cancer Res. Treat. 66: 67-72.
4. Cordell, P.A., Futers, T.S., Grant, P.J. and Pease, R.J. 2004. The human hydroxyacylglutathione hydrolase (HAGH) gene encodes both cytosolic and mitochondrial forms of Glyoxalase II. J. Biol. Chem. 279: 28653-28661.
5. Krömer, S.A., Kessler, M.S., Milfay, D., Birg, I.N., Bunck, M., Czibere, L., Panhuysen, M., Pütz, B., Deussing, J.M., Holsboer, F., Landgraf, R. and Turck, C.W. 2005. Identification of Glyoxalase I as a protein marker in a mouse model of extremes in trait anxiety. J. Neurosci. 25: 4375-4384.
6. Yadav, S.K., Singla-Pareek, S.L., Ray, M., Reddy, M.K. and Sopory, S.K. 2005. Methylglyoxal levels in plants under salinity stress are dependent on Glyoxalase I and glutathione. Biochem. Biophys. Res. Commun. 337: 61-67.
7. Ariza, A., Vickers, T.J., Greig, N., Fairlamb, A.H. and Bond, C.S. 2006. Crystallization and preliminary X-ray analysis of *Leishmania major* Glyoxalase I. Acta Crystallograph. Sect. F Struct. Biol. Cryst. Commun. 61: 769-772.
8. Ariza, A., Vickers, T.J., Greig, N., Armour, K.A., Dixon, M.J., Eggleston, I.M., Fairlamb, A.H. and Bond, C.S. 2006. Specificity of the trypanothione-dependent *Leishmania major* Glyoxalase I: structure and biochemical comparison with the human enzyme. Mol. Microbiol. 59: 1239-1248.

CHROMOSOMAL LOCATION

Genetic locus: Hagh (mouse) mapping to 17 A3.3.

PRODUCT

Glyoxalase II (m2): 293T Lysate represents a lysate of mouse Glyoxalase II transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Glyoxalase II (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Glyoxalase II antibodies. Recommended use: 10-20 µl per lane.

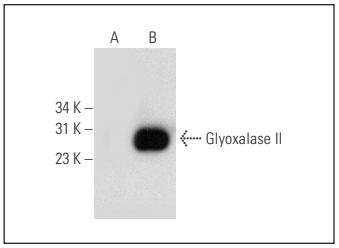
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Glyoxalase II (C-6): sc-271663 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Glyoxalase II expression in Glyoxalase II transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

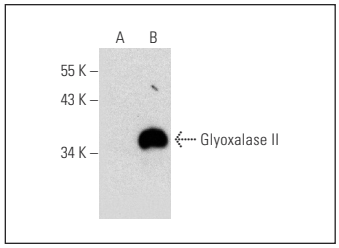
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Glyoxalase II (F-12): sc-365025. Western blot analysis of Glyoxalase II expression in non-transfected: sc-117752 (**A**) and mouse Glyoxalase II transfected: sc-120531 (**B**) 293T whole cell lysates.



Glyoxalase II (C-6): sc-271663. Western blot analysis of Glyoxalase II expression in non-transfected: sc-117752 (**A**) and mouse Glyoxalase II transfected: sc-120531 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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