GSTK1 (h): 293T Lysate: sc-110883



The Power to Question

BACKGROUND

Members of the glutathione S-transferase (GST) family of proteins function in the detoxification of xenobiotics to protect cells against toxicant-induced damage. There are eight families of GST proteins, namely $\alpha,\, \xi,\, \theta,\, \kappa,\, \mu,\, \pi,\, \sigma$ and $\omega,$ each of which are composed of proteins that have a variety of functions throughout the cell. GSTK1 (glutathione S-transferase kappa 1), also known as glutathione S-transferase subunit 13 (GST 13-13) or GSTK1-1, is a 226 amino acid ubiquitously expressed protein belonging to the κ class of the GST superfamily that functions in cellular detoxification. Localizing to peroxisome, GSTK1 exists as a homodimer that catalyzes the conjugation of glutathione to a number of hydrophobic substrates leading to their removal from the cell.

REFERENCES

- 1. Pemble, S.E., Wardle, A.F. and Taylor, J.B. 1996. Glutathione S-transferase class κ : characterization by the cloning of rat mitochondrial GST and identification of a human homologue. Biochem. J. 319: 749-754.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602321. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 3. Jowsey, I.R., Thomson, R.E., Orton, T.C., Elcombe, C.R. and Hayes, J.D. 2003. Biochemical and genetic characterization of a murine class κ glutathione S-transferase. Biochem. J. 373: 559-569.
- 4. Robinson, A., Huttley, G.A., Booth, H.S. and Board, P.G. 2004. Modelling and bioinformatics studies of the human κ -class glutathione transferase predict a novel third glutathione transferase family with similarity to prokaryotic 2-hydroxychromene-2-carboxylate isomerases. Biochem. J. 379: 541-552.
- Nebert, D.W. and Vasiliou, V. 2004. Analysis of the glutathione S-transferase (GST) gene family. Hum. Genomics 1: 460-464.
- 6. Morel, F., Rauch, C., Petit, E., Piton, A., Theret, N., Coles, B. and Guillouzo, A. 2004. Gene and protein characterization of the human glutathione S-transferase κ and evidence for a peroxisomal localization. J. Biol. Chem. 279: 16246-16253.

CHROMOSOMAL LOCATION

Genetic locus: GSTK1 (human) mapping to 7q34.

PRODUCT

GSTK1 (h): 293T Lysate represents a lysate of human GSTK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

PROTOCOLS

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

APPLICATIONS

GSTK1 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GSTK1 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.

RESEARCH USE

For research use only, not for use in diagnostic procedures

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com