

BLM hydrolase (m2): 293T Lysate: sc-125058

BACKGROUND

BLM hydrolase (bleomycin hydrolase, BMH) is a 455 amino acid protein encoded by the human gene BLMH. BLM hydrolase belongs to the cysteine protease papain superfamily and the peptidase C1 family. It is a cytoplasmic cysteine peptidase commonly found as a homohexamer. It is highly conserved through evolution, however, the only known activity of the enzyme is metabolic inactivation of the glycopeptide bleomycin (BLM). BLM is an essential component of combination chemotherapy regimens for cancer.

REFERENCES

1. Schwartz, D.R., Homanics, G.E., Hoyt, D.G., Klein, E., Abernethy, J. and Lazo, J.S. 1999. The neutral cysteine protease bleomycin hydrolase is essential for epidermal integrity and bleomycin resistance. *Proc. Natl. Acad. Sci. USA* 96: 4680-4685.
2. Riva, P., Corrado, L., Natacci, F., Castorina, P., Wu, B.L., Schneider, G.H., Clementi, M., Tenconi, R., Korf, B.R. and Larizza, L. 2000. NF1 microdeletion syndrome: refined fish characterization of sporadic and familial deletions with locus-specific probes. *Am. J. Hum. Genet.* 66: 100-109.
3. Prince, J.A., Feuk, L., Sawyer, S.L., Gottfries, J., Ricksten, A., Nägga, K., Bogdanovic, N., Blennow, K. and Brookes, A.J. 2001. Lack of replication of association findings in complex disease: an analysis of 15 polymorphisms in prior candidate genes for sporadic Alzheimer's disease. *Eur. J. Hum. Genet.* 9: 437-444.
4. Bentivegna, A., Venturin, M., Gervasini, C., Corrado, L., Larizza, L. and Riva, P. 2001. Identification of duplicated genes in 17q11.2 using fish on stretched chromosomes and DNA fibers. *Hum. Genet.* 109: 48-54.
5. Kim, S.J., Cox, N., Courchesne, R., Lord, C., Corsello, C., Akshoomoff, N., Guter, S., Leventhal, B.L. and Courchesne, E. 2002. Transmission disequilibrium mapping at the serotonin transporter gene (SLC6A4) region in autistic disorder. *Mol. Psychiatry* 7: 278-288.
6. Montoya, S.E., Thiels, E., Card, J.P. and Lazo, J.S. 2007. Astrogliosis and behavioral changes in mice lacking the neutral cysteine protease bleomycin hydrolase. *Neuroscience* 146: 890-900.

CHROMOSOMAL LOCATION

Genetic locus: Blmh (mouse) mapping to 11 B5.

PRODUCT

BLM hydrolase (m2): 293T Lysate represents a lysate of mouse BLM hydrolase 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

BLM hydrolase (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive BLM hydrolase 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.