SANTA CRUZ BIOTECHNOLOGY, INC.

SerpinA3k (m): 293T Lysate: sc-123488

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The serine proteinase inhibitors (serpins) compose a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and development. Serpins are secreted glycoproteins that contain a stretch of peptide that mimics a true substrate for a corresponding serine protease. SerpinA3k (serine protease inhibitor A3K), also known as contrapsin, SPI-2 or Mcm2, is a 418 amino acid murine protein that inhibits trypsin-like proteases and belongs to the serpin family. Expressed in liver and secreted in plasma, SerpinA3k is encoded by a gene that maps to murine chromosome 12 E.

REFERENCES

1. Le Cam, A., Pages, G., Auberger, P., Le Cam, G., Leopold, P., Benarous, R. and Glaichenhaus, N. 1987. Study of a growth hormone-regulated protein secreted by rat hepatocytes: cDNA cloning, anti-protease activity and regulation of its synthesis by various hormones. EMBO J. 6: 1225-1232.
2. Billingsley, G.D., Walter, M.A., Hammond G.L. and Cox, D.W. 1993. Physical mapping of four serpin genes: α1-antitrypsin, α1-antichymotrypsin, corticosteroid-binding globulin, and protein C inhibitor, within a 280-kb region on chromosome I4q32.1. Am. J. Hum. Genet. 52: 343-353.
3. Forsyth, S., Horvath A. and Coughlin, P. 2003. A review and comparison of the murine α1-antitrypsin and α1-antichymotrypsin multigene clusters with the human clade A Serpins. Genomics 81: 336-345.
4. Horvath, A.J., Forsyth S.L. and Coughlin, P.B. 2004. Expression patterns of murine antichymotrypsin-like genes reflect evolutionary divergence at the SerpinA3 locus. J. Mol. Evol. 59: 488-497.
5. Horvath, A.J., Irving, J.A., Rossjohn, J., Law, R.H., Bottomley, S.P., Quinsey, N.S., Pike, R.N., Coughlin P.B. and Whisstock, J.C. 2005. The murine orthologue of human antichymotrypsin: a structural paradigm for clade A3 Serpins. J. Biol. Chem. 280: 43168-43178.
6. Winkler, I.G., Hendy, J., Coughlin, P., Horvath A. and Lévesque, J.P. 2005. Serine protease inhibitors SerpinA1 and SerpinA3 are down-regulated in bone marrow during hematopoietic progenitor mobilization. J. Exp. Med. 201: 1077-1088.

CHROMOSOMAL LOCATION

Genetic locus: Serpina3k (mouse) mapping to 12 E.

PRODUCT

SerpinA3k (m): 293T Lysate represents a lysate of mouse SerpinA3k 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.

RESEARCH USE

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

APPLICATIONS

SerpinA3k (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive SerpinA3k 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.

PROTOCOLS

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