SANTA CRUZ BIOTECHNOLOGY, INC.

AMBP (m): 293T Lysate: sc-124965

BACKGROUND

The AMBP (α-1-Microglobulin/Bikunin precursor) gene encodes a protein precursor, known as AMBP, that is cleaved to produce two distinct proteins, designated α-1-Microglobulin and Bikunin. α-1-Microglobulin, also known as protein HC, is a member of the lipocalin superfamily and is secreted mainly in plasma, urine and cerebrospinal fluid. Thought to have reductase/dehydrogenase activity, α-1-Microglobulin exhibits immunosuppressive properties, such as cytokine secretion and inhibition of antigen-induced lymphocyte cell proliferation, and may be involved in the reduction of biological prooxidants. The second protein cleavage product, designated Bikunin and also known as inter-α-trypsin inhibitor light chain, ITI-LC or urinary trypsin inhibitor, is a widely expressed protein that is stored in the granules of human connective tissue mast cells. One of many proteins in the Kunitz-type protease inhibitor family, Bikunin prevents autodigestion by exocrine enzymes, such as trypsinogen and chymo-trypsinogen, and plays a role in the anti-inflammatory/antiproteinase immune response. Unlike α-1-Microglobulin, Bikunin is implicated in the pathogenesis of a number of renal diseases, such as urolithiasis.

REFERENCES

1. Itoh, H., et al. 1996. Expression of inter-α-trypsin inhibitor light chain (Bikunin) in human pancreas. J. Biochem. 120: 271-275.
2. Olsen, E.H., et al. 1998. Posttranslational modifications of human inter-α-inhibitor: identification of glycans and disulfide bridges in heavy chains 1 and 2. Biochemistry 37: 408-416.
3. Dawson, C.J., et al. 1998. Inter-α-inhibitor in calcium stones. Clin. Sci. 95: 187-193.
4. Ide, H., et al. 1999. Immunohistochemical demonstration of inter-α-trypsin inhibitor light chain (Bikunin) in human mast cells. Cell Tissue Res. 297: 149-154.
5. Atmani, F., et al. 1999. Role of inter-α-inhibitor and its related proteins in experimentally induced calcium oxalate urolithiasis. Localization of proteins and expression of Bikunin gene in the rat kidney. Urol. Res. 27: 63-67.
6. Balduyck, M., et al. 2000. Inflammation-induced systemic proteolysis of inter-α-inhibitor in plasma from patients with sepsis. J. Lab. Clin. Med. 135: 188-198.

CHROMOSOMAL LOCATION

Genetic locus: Ambp (mouse) mapping to 4 B3.

PRODUCT

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

APPLICATIONS

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

PROTOCOLS

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