

fetuin-B (m): 293T Lysate: sc-120239

BACKGROUND

Fetuin is a secreted plasma protein that is expressed in hepatocytes, monocyte/macrophages and in bone and is downregulated during injury and inflammation. Fetuin preferentially binds to and carries calcium and barium ions in the blood, where it is thought to mediate serum calcium homeostasis and mineralization, and to potentially participate in the transport of bioactive molecules. Additionally, fetuin has been shown to function as an acute phase anti-inflammatory mediator that is critical to regulating the innate immune response following tissue injury. During inflammation, circulating fetuin levels substantially decrease as fetuin becomes associated with the membranes of macrophages. This membrane associated form of fetuin acts as an opsonic participant by potentiating the entry of cationic small molecules into the activated macrophage, which in turn facilitates macrophage-deactivating mechanisms. Biologically active fetuin is derived from a precursor protein that is cleaved at the amino-terminus to generate two chains held together by a single disulfide bond. Fetuin-B is a secreted protein primarily expressed in liver and testis.

REFERENCES

1. Lebreton, J.P., et al. 1979. Serum concentration of human $\alpha 2$ HS glycoprotein during the inflammatory process: evidence that $\alpha 2$ HS glycoprotein is a negative acute-phase reactant. J. Clin. Invest. 64: 1118-1129.
2. Lee, C.C., et al. 1987. Human $\alpha 2$ -HS-glycoprotein: the A and B chains with a connecting sequence are encoded by a single mRNA transcript. Proc. Natl. Acad. Sci. USA 84: 4403-4407.
3. Schinke, T., et al. 1996. The serum protein $\alpha 2$ -HS glycoprotein/fetuin inhibits apatite formation *in vitro* and in mineralizing calvaria cells. A possible role in mineralization and calcium homeostasis. J. Biol. Chem. 271: 20789-20796.
4. Osawa, M., et al. 1997. Structure of the gene encoding human $\alpha 2$ -HS glycoprotein (AHSG). Gene 196: 121-125.
5. Dziegielewska, K.M., et al. 1998. Modification of macrophage response to lipopolysaccharide by fetuin. Immunol. Lett. 60: 31-35.
6. Wang, H., et al. 1998. Fetuin ($\alpha 2$ -HS-glycoprotein) opsonizes cationic macrophage deactivating molecules. Proc. Natl. Acad. Sci. USA 95: 14429-14434.
7. Banine, F., et al. 1998. Structural and functional analysis of the 5'-transcription control region for the human $\alpha 2$ -HS glycoprotein gene. Biochim. Biophys. Acta 1398: 1-8.
8. Olivier, E., et al. 2000. Fetuin-B, a second member of the fetuin family in mammals. J. Biochem. J. 350: 589-597.

CHROMOSOMAL LOCATION

Genetic locus: Fetub (mouse) mapping to 16 B1.

PRODUCT

fetuin-B (m): 293T Lysate represents a lysate of mouse fetuin-B transfected 293T cells and is provided as 100 μ g protein in 200 μ l 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

fetuin-B (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive fetuin-B antibodies. Recommended use: 10-20 μ l 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.