

GP-39 (m2): 293T Lysate: sc-120570

BACKGROUND

Human cartilage glycoprotein 39 (GP-39), also known as YKL-40, is a glycoprotein secreted by articular chondrocytes, synoviocytes and macrophages. Serum and synovial fluid GP-39 levels are elevated in inflammatory diseases and correlate with the degree of joint destruction in rheumatoid arthritis. GP-39 is expressed in articular chondrocytes and synovial cells, as well as in liver, but is undetectable in muscle tissues, lung, pancreas, mononuclear cells and fibro-blasts. GP-39 is a candidate autoantigen in rheumatoid arthritis and is important in the capacity of cells to respond to and cope with changes in their environment.

REFERENCES

1. Hakala, B.E., et al. 1993. Human cartilage GP-39, a major secretory product of articular chondrocytes and synovial cells, is a mammalian member of a chitinase protein family. *J. Biol. Chem.* 268: 25803-25810.
2. Liu, H.W., et al. 2000. GP-83 and GP-39, two glycoproteins secreted by human epididymis are conjugated to spermatozoa during maturation. *Mol. Hum. Reprod.* 6: 422-428.
3. De Ceuninck, F., et al. 2001. YKL-40 (cartilage GP-39) induces proliferative events in cultured chondrocytes and synoviocytes and increases glycosaminoglycan synthesis in chondrocytes. *Biochem. Biophys. Res. Commun.* 285: 926-931.
4. Recklies, A.D., et al. 2002. The chitinase 3-like protein human cartilage glycoprotein 39 (HC GP-39) stimulates proliferation of human connective-tissue cells and activates both extracellular signal-regulated kinase- and protein kinase B-mediated signalling pathways. *Biochem. J.* 365: 119-126.
5. Tsuji, T., et al. 2002. Analysis of chondrex (YKL-40, HC GP-39) in the cerebrospinal fluid of patients with spine disease. *Spine* 27: 732-735.
6. Steenbakkers, P.G., et al. 2003. Localization of MHC class II/human cartilage glycoprotein 39 complexes in synovia of rheumatoid arthritis patients using complex-specific monoclonal antibodies. *J. Immunol.* 170: 5719-5727.
7. Shostak, K., et al. 2003. HC GP-39 gene is upregulated in glioblastomas. *Cancer Lett.* 198: 203-210.
8. Baeten, D., et al. 2004. Detection of major histocompatibility complex/human cartilage GP-39 complexes in rheumatoid arthritis synovitis as a specific and independent histologic marker. *Arthritis Rheum.* 50: 444-451.

CHROMOSOMAL LOCATION

Genetic locus: Chi3l1 (mouse) mapping to 1 E4.

PRODUCT

GP-39 (m2): 293T Lysate represents a lysate of mouse GP-39 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

GP-39 (m2): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive GP-39 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.