

GP-39 (D-11): sc-393494

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 fibroblasts. 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.

CHROMOSOMAL LOCATION

Genetic locus: CHI3L1 (human) mapping to 1q32.1; Chil1 (mouse) mapping to 1 E4.

SOURCE

GP-39 (D-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 28-42 at the N-terminus of GP-39 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-393494 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

GP-39 (D-11) is recommended for detection of GP-39 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GP-39 (D-11) is also recommended for detection of GP-39 in additional species, including bovine and porcine.

Suitable for use as control antibody for GP-39 siRNA (h): sc-44580, GP-39 siRNA (m): sc-44581, GP-39 shRNA Plasmid (h): sc-44580-SH, GP-39 shRNA Plasmid (m): sc-44581-SH, GP-39 shRNA (h) Lentiviral Particles: sc-44580-V and GP-39 shRNA (m) Lentiviral Particles: sc-44581-V.

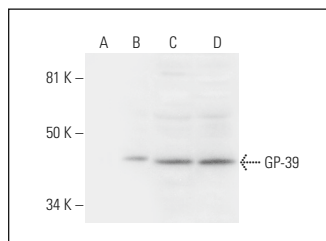
Molecular Weight of GP-39: 39 kDa.

Positive Controls: GP-39 (h): 293 Lysate: sc-110933, Jurkat whole cell lysate: sc-2204 or THP-1 cell lysate: sc-2238.

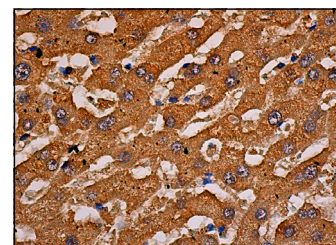
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohisto-mount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



GP-39 (D-11): sc-393494. Western blot analysis of GP-39 expression in non-transfected 293: sc-110760 (A), human GP-39 transfected 293: sc-110933 (B), Jurkat (C) and THP-1 (D) whole cell lysates.



GP-39 (D-11): sc-393494. Immunoperoxidase staining of formalin fixed, paraffin-embedded human liver tissue showing cytoplasmic staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Lu, D., et al. 2022. Multi-omics profiling reveals Chitinase-3-like protein 1 as a key mediator in the crosstalk between sarcopenia and liver cancer. *Redox Biol.* 58: 102538.

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.