

GP-39 (E-11): sc-376910

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: Chi311 (mouse) mapping to 1 E4.

SOURCE

GP-39 (E-11) is a mouse monoclonal antibody raised against amino acids 136-178 mapping within an internal region of GP-39 of mouse origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GP-39 (E-11) is available conjugated to agarose (sc-376910 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376910 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376910 PE), fluorescein (sc-376910 FITC), Alexa Fluor® 488 (sc-376910 AF488), Alexa Fluor® 546 (sc-376910 AF546), Alexa Fluor® 594 (sc-376910 AF594) or Alexa Fluor® 647 (sc-376910 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376910 AF680) or Alexa Fluor® 790 (sc-376910 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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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 (E-11) is recommended for detection of GP-39 of mouse 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).

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

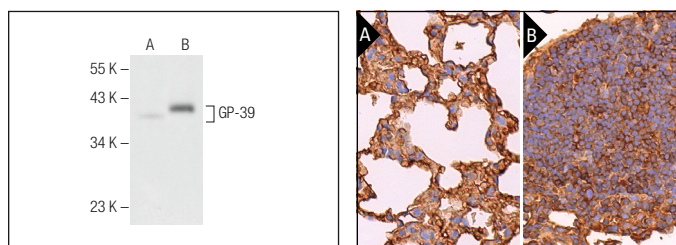
Molecular Weight of GP-39: 39 kDa.

Positive Controls: mouse liver extract: sc-2256 or GP-39 (m): 293T Lysate: sc-120569.

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 A/G PLUS-Agarose: sc-2003 (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 Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



GP-39 (E-11): sc-376910. Western blot analysis of GP-39 expression in non-transfected: sc-117752 (A) and mouse GP-39 transfected: sc-120569 (B) 293T whole cell lysates.

GP-39 (E-11): sc-376910. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lung tissue showing membrane and cytoplasmic staining of pneumocytes and macrophages (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymph node tissue showing cytoplasmic staining of cells in germinal center and cells in non-germinal center (B).

SELECT PRODUCT CITATIONS

- Ge, L., et al. 2023. Chitinase 3-like 1 plays a pivotal role in airway response of RSV infection via regulating DC functional transition. *Int. Immunopharmacol.* 124: 110819.

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.