

ENGase (V-20): sc-27546

BACKGROUND

Endo- β -N-acetylglucosaminidase (ENGase) is a primarily cytoplasmic protein. The gene encoding for ENGase maps to chromosome 17q25.3. ENGase is an important enzyme involved in free oligosaccharide processing in the cytosol. This activity has been widely described in animal cells. Together with a cytosolic-mannosidase, ENGase have been found to be important for the transferring of free oligosaccharides into the lysosome, where they are further degraded. ENGase is present in the synovial fluid of rheumatoid arthritis patients, which may contribute to glycosaminoglycan depletion from cartilage. This depletion contributes to the invasion of synovial cells and their attachment to cartilage in rheumatoid arthritis.

REFERENCES

1. Tachibana, Y., Yamashita, K., Kawaguchi, M., Arashima, S. and Kobata, A. 1981. Digestion of asparagine-linked oligosaccharides by endo- β -N-acetylglucosaminidase in the human skin fibroblasts obtained from fucosidosis patients. *J. Biochem.* 90: 1291-1296.
2. Suzuki, T., Yano, K., Sugimoto, S., Kitajima, K., Lennarz, W.J., Inoue, S., Inoue, Y. and Emori, Y. 2002. Endo- β -N-acetylglucosaminidase, an enzyme involved in processing of free oligosaccharides in the cytosol. *Proc. Natl. Acad. Sci. USA* 99: 9691-9696.
3. Ortutay, Z., Polgar, A., Gomor, B., Geher, P., Lakatos, T., Glant, T.T., Gay, R.E., Gay, S., Pallinger, E., Farkas, C., Farkas, E., Tothfalusi, L., Kocsis, K., Falus, A. and Buzas, E.I. 2003. Synovial fluid exoglycosidases are predictors of rheumatoid arthritis and are effective in cartilage glycosaminoglycan depletion. *Arthritis Rheum.* 48: 2163-2172.
4. <http://harvester.embl.de/harvester/Q8NF/Q8NFI3.htm>

CHROMOSOMAL LOCATION

Genetic locus: ENGASE (human) mapping to 17q25.3; Engase (mouse) mapping to 11.

SOURCE

ENGase (V-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ENGase of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27546 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

PROTOCOLS

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

APPLICATIONS

ENGase (V-20) is recommended for detection of ENGase of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ENGase (V-20) is also recommended for detection of ENGase in additional species, including equine and canine.

Suitable for use as control antibody for ENGase siRNA (h): sc-77375, ENGase siRNA (m): sc-77376, ENGase shRNA Plasmid (h): sc-77375-SH, ENGase shRNA Plasmid (m): sc-77376-SH, ENGase shRNA (h) Lentiviral Particles: sc-77375-V and ENGase shRNA (m) Lentiviral Particles: sc-77376-V.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

For research use only, not for use in diagnostic procedures.