SANTA CRUZ BIOTECHNOLOGY, INC.

Endoglycan (S-19): sc-54194



BACKGROUND

Endoglycan, also known as podocalyxin-like two, exists as a disulfide-dependent homodimer and belongs to the CD34 family of proteins. Endoglycan is a proteoglycan modified with chondroitin sulfate chains and (with appropriate posttranslational modifications) functions as an L-Selectin ligand, interacting via sulfation on two tyrosine residues. Endoglycan contains a membrane proximal globular domain, a single-pass transmembrane domain, a mucin-like domain and a highly acidic N-terminal with O-linked sLex structures. It is widely expressed, with distribution including endothelial cells, hematopoietic precursors and leukocyte subpopulations. Endoglycan is similar to PSGL-1 in that it also exhibits catch-slip transitional bonds. These bonds help to mediate the rolling and tethering of circulating leukocytes on vascular surfaces, typically during immune surveillance and inflammation. The ligand activity of Endoglycan is dependent on sialylation and fucosylation and may mediate adhesion events.

REFERENCES

- Sassetti, C., et al. 2000. Identification of Endoglycan, a member of the CD34/podocalyxin family of sialomucins. J. Biol. Chem. 275: 9001-9010.
- Simmons, P.J., et al. 2001. Mucin-like molecules as modulators of the survival and proliferation of primitive hematopoietic cells. Ann. N.Y. Acad. Sci. 938: 196-206.
- Fieger, C.B., et al. 2003. Endoglycan, a member of the CD34 family, functions as an L-Selectin ligand through modification with tyrosine sulfation and sialyl Lewis x. J. Biol. Chem. 278: 27390-27398.
- 4. Kerosuo, L., et al. 2004. Podocalyxin in human haematopoietic cells. Br. J. Haematol. 124: 809-818.
- Sarangapani, K.K., et al. 2004. Low force decelerates L-Selectin dissociation from P-Selectin glycoprotein ligand-1 and Endoglycan. J. Biol. Chem. 279: 2291-2298.
- van der Zwaag, B., et al. 2005. Identifying new candidate genes for hereditary facial paresis on chromosome 3q21-q22 by RNA *in situ* hybridization in mouse. Genomics 86: 55-67.
- McEver, R.P. 2005. A sulfated address for lymphocyte homing. Nat. Immunol. 6: 1067-1069.
- Furness, S.G. and McNagny, K. 2006. Beyond mere markers: functions for CD34 family of sialomucins in hematopoiesis. Immunol. Res. 34: 13-32.
- Tan, P.C., et al. 2006. Na⁺/H⁺ exchanger regulatory factor-1 is a hematopoietic ligand for a subset of the CD34 family of stem cell surface proteins. Stem Cells 24: 1150-1161.

CHROMOSOMAL LOCATION

Genetic locus: PODXL2 (human) mapping to 3q21.3; Podxl2 (mouse) mapping to 6 D1.

SOURCE

Endoglycan (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Endoglycan of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-54194 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Endoglycan (S-19) is recommended for detection of Endoglycan 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).

Endoglycan (S-19) is also recommended for detection of Endoglycan in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Endoglycan siRNA (h): sc-72322, Endoglycan siRNA (m): sc-72323, Endoglycan shRNA Plasmid (h): sc-72322-SH, Endoglycan shRNA Plasmid (m): sc-72323-SH, Endoglycan shRNA (h) Lentiviral Particles: sc-72322-V and Endoglycan shRNA (m) Lentiviral Particles: sc-72323-V.

Molecular Weight of reduced Endoglycan: 150 kDa.

Molecular Weight of non-reduced Endoglycan: 250 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, F9 cell lysate: sc-2245 or HEL 92.1.7 cell lysate: sc-2270.

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) Immunofluo-rescence: 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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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