SANTA CRUZ BIOTECHNOLOGY, INC.

# CD175s (3H1951): sc-70558

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

CD175s (also referred to as sialyl-Tn) is a Mucin-type carbohydrate that is normally present in goblet cells of small and large bowel. CD175s is produced in the initial steps of Mucin biosynthetic pathway, and it plays a key role in the glycosylation of proteins that affect cell-cell interaction, the interactions with the matrix and the functions of intracellular molecules. Specifically, CD175s transfers a sialic acid, N-acetylneuraminic acid (NeuAc), in an $\alpha$-2,6 linkage onto O-linked GalNAc residues. CD175s is associated with hyperplasia in squamous epithelium and may be linked to tumor regression, thereby proving to be a useful tool in the prediction of carcinoma aggressiveness, particularly breast and ovarian cancers.

## REFERENCES


1. Ghazizadeh, M., Ogawa, H., Sasaki, Y., Araki, T. and Aihara, K. 1997. Mucin carbohydrate antigens (T, Tn, and sialyl-Tn) in human ovarian carcinomas: relationship with histopathology and prognosis. Hum. Pathol. 28: 960-966.
2. Jensen, P., Clausen, O.P. and Bryne, M. 1999. Differences in sialyl-Tn antigen expression between keratoacanthomas and cutaneous squamous cell carcinomas. J. Cutan. Pathol. 26: 183-189.
3. Lundin, M., Nordling, S., Roberts, P.J., Lundin, J., Carpelan-Holmström, M., von Boguslawsky, K. and Haglund, C. 1999. Sialyl-Tn is a frequently expressed antigen in colorectal cancer: no correlation with patient prognosis. Oncology 57: 70-76.
4. Sasaki, M., Yamato, T. and Nakanuma, Y. 1999. Expression of sialyl-Tn, Tn and T antigens in primary liver cancer. Pathol. Int. 49: 325-331.
5. Kannagi, R. 1999. Sialyl Tn antigen. Nippon Rinsho 57: 482-487.
6. Muroi, K., Tarumoto, T., Akioka, T., Kirito, K., Nagai, T., Izumi, T., Nakamura, M., Hatake, K., Hakomori, S., Miura, Y. and Ozawa, K. 2000. Sialyl-Tn and neuron-specific enolase-positive minimally differentiated erythroleukemia. Intern. Med. 39: 843-846.
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8. Imai, J., Ghazizadeh, M., Naito, Z. and Asano, G. 2001. Immunohistochemical expression of T, Tn and sialyl-Tn antigens and clinical outcome in human breast carcinoma. Anticancer Res. 21: 1327-1334.
9. Kawano-Yamamoto, C., Muroi, K., Nagatsuka, Y., Higuchi, M., Kikuchi, S., Nagai, T., Hakomori, S.I. and Ozawa, K. 2006. Establishment and characterization of a new erythroblastic leukemia cell line, EEB: phosphatidylglucoside-mediated erythroid differentiation and apoptosis. Leuk. Res. 30: 829-839.


## SOURCE

CD175s (3H1951) is a mouse monoclonal antibody raised against CD175s red blood cells of human origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

CD175s (3H1951) is recommended for detection of CD175 on Glycophorin A and Glycophorin B in erythrocytes of human origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Immunofluorescence: use m-IgG$\kappa$ BP-FITC: sc-516140 or m-IgG$\kappa$ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## SELECT PRODUCT CITATIONS


1. Belov, L., Hallal, S., Matic, K., Zhou, J., Wissmueller, S., Ahmed, N., Tanjil, S., Mulligan, S.P., Best, O.G., Simpson, R.J. and Christopherson, R.I. 2017. Surface profiling of extracellular vesicles from plasma or ascites fluid using dotscan antibody microarrays. Methods Mol. Biol. 1619: 263-301.
2. Prendergast, J.M., Galvao da Silva, A.P., Eavarone, D.A., Ghaderi, D., Zhang, M., Brady, D., Wicks, J., DeSander, J., Behrens, J. and Rueda, B.R. 2017. Novel anti-sialyl-Tn monoclonal antibodies and antibody-drug conjugates demonstrate tumor specificity and anti-tumor activity. MAbs 9: 615-627.


## 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 for detailed protocols and support products.