

Anti-Sulfo LacNAc Antibodies

Sulfated carbohydrate chains are commonly found in glycosaminoglycans, and their diverse sulfation patterns are responsible for a wide variety of biological interactions. For example, 6-sulfo LacNAc (slan) and sulphate-modified sialyl-Lewis X have been reported to respectively act as P-selectin and L-selectin ligands in humans and mice during cell adhesion mediated by lymphocyte homing. Here, we introduce antibody products useful for detecting these carbohydrate ligands.

Anti-6-sulfo LacNAc Monoclonal Antibody (AG105) 0.1mg/vial [A3251]

Isotype: Mouse IgM

Specificity: 6-Sulfo LacNAc, 6-Sulfo Lewis X

References

- 1) Expression of sialyl 6-sulfo Lewis X is inversely correlated with conventional sialyl Lewis X expression in human colorectal cancer
M. Izawa, K. Kumamoto, C. Mitsuoka, A. Kanamori, K. Ohmori, H. Ishida, S. Nakamura, K. Kurata-Miura, K. Sasaki, T. Nishi, R. Kannagi, *Cancer Res.* **2000**, *60*, 1410-1416.
- 2) 6-Sulfo LacNAc, a novel carbohydrate modification of PSGL-1, defines an inflammatory type of human dendritic cells
K. Schäkel, R. Kannagi, B. Kniep, Y. Goto, C. Mitsuoka, J. Zwirner, A. Soruri, M. von Kietzell, E. P. Rieber, *Immunity* **2002**, *17*, 289.
- 3) TNF- α increases the carbohydrate sulfation of CD44: induction of 6-sulfo N-acetyl lactosamine on N- and O-linked glycans
M. Delcomenne, R. Kannagi, P. Johnson, *Glycobiology* **2002**, *12*, 613.
- 4) Expression of N-acetylglucosamine 6-O-sulfotransferases (GlcNAc6STs)-1 and -4 in human monocytes: GlcNAc6ST-1 is implicated in the generation of the 6-sulfo N-acetylglucosamine/Lewis x epitope on CD44 and is induced by TNF- α
S. L. Tjew, K. L. Brown, R. Kannagi, P. Johnson, *Glycobiology* **2005**, *15*, 7C.
- 5) Anti-oligosaccharide antibodies as tools for studying sulfated sialoglycoconjugate ligands for siglecs and selectins
R. Kannagi, K. Ohmori, N. Kimura, *Glycoconj. J* **2009**, *26*, 923.

Anti-6,6'-disulfo LacNAc Monoclonal Antibody (L4L4-8)

Isotype: Mouse IgM

Specificity: 6,6'-Disulfo LacNAc

0.1mg/vial [A3252]

Reference

TNF- α increases the carbohydrate sulfation of CD44: induction of 6-sulfo N-acetyl lactosamine on N- and O-linked glycans
M. Delcomenne, R. Kannagi, P. Johnson, *Glycobiology* **2002**, *12*, 613.

Anti-Sialyl 6,6'-disulfo LacNAc Monoclonal Antibody (G270-16)

Isotype: Mouse IgM

Specificity: Sialyl 6,6'-disulfo LacNAc

0.1mg/vial [A3253]

References

- 1) Identification of a major carbohydrate capping group of the L-selectin ligand on high endothelial venules in human lymph nodes as 6-sulfo sialyl Lewis X
C. Mitsuoka, M. Sawada-Kasugai, K. Ando-Furui, M. Izawa, H. Nakanishi, S. Nakamura, H. Ishida, M. Kiso, R. Kannagi, *J. Biol. Chem.* **1998**, *273*, 11225.
- 2) TNF- α increases the carbohydrate sulfation of CD44: induction of 6-sulfo N-acetyl lactosamine on N- and O-linked glycans
M. Delcomenne, R. Kannagi, P. Johnson, *Glycobiology* **2002**, *12*, 613.
- 3) KSGal6ST generates galactose-6-O-sulfate in high endothelial venules but does not contribute to L-selectin-dependent lymphocyte homing
M. L. Patnode, S. Yu, C. Cheng, M. Ho, L. Tegesjö, K. Sakuma, K. Uchimura, K. Khoo, R. Kannagi, S. D. Rosen, *Glycobiology* **2013**, *23*, 381.

Anti-Keratan Sulfate Monoclonal Antibody (R-10G) 0.1mg/vial [A2968]

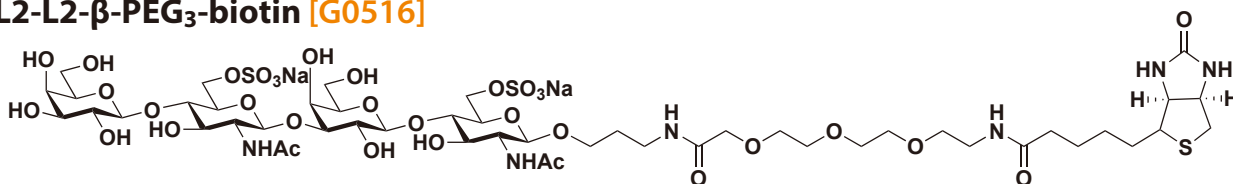
Isotype: Mouse IgG₁

References

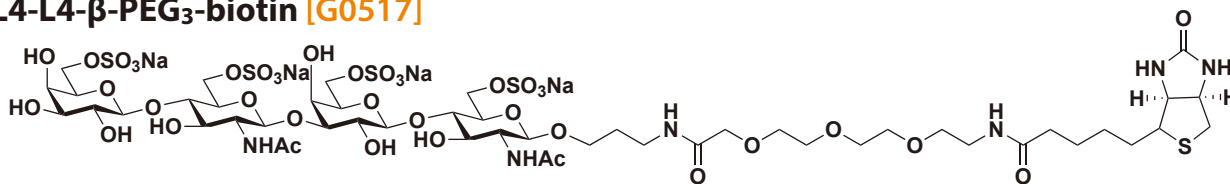
- 1) A novel antibody for human-induced pluripotent stem cells and embryonic stem cells recognizes a type of keratan sulfate lacking oversulfated structures
K. Kawabe, D. Tateyama, H. Toyoda, N. Kawasaki, N. Hashii, H. Nakao, S. Matsumoto, M. Nonaka, H. Matsumura, Y. Hirose, A. Morita, M. Katayama, M. Sakuma, N. Kawasaki, M. K. Furue, T. Kawasaki, *Glycobiology* **2013**, *23*, 322.
- 2) A Cytotoxic Antibody Recognizing Lacto-N-fucopentaose I (LNFP I) on Human Induced Pluripotent Stem (hiPS) Cells
S. Matsumoto, H. Nakao, K. Kawabe, M. Nonaka, H. Toyoda, Y. Takishima, K. Kawabata, T. Yamaguchi, M. K Furue, T. Taki, T. Okumura, Y. Yamazaki, S. Nakaya, N. Kawasaki, T. Kawasaki, *J. Biol.Chem.* **2015**, *290*, 20071.
- 3) Characterization of glycoproteins expressing the blood group H type 1 epitope on human induced pluripotent stem (hiPS) cells
H. Nakao, S. Matsumoto, Y. Nagai, A. Kojima, H. Toyoda, N. Hashii, D. Takakura, N. Kawasaki, T. Yamaguchi, K. Kawabata, N. Kawasaki, T. Kawasaki, *Glycoconj. J.* **2016**, *34*, 779.
- 4) Binding specificity of R-10G and TRA-1-60/81, and substrate specificity of keratanase II studied with chemically synthesized oligosaccharides
H. Nakao, Y. Nagai, A. Kojima, H. Toyoda, N. Kawasaki, T. Kawasaki, *Glycoconj. J.* **2017**, *34*, 789.

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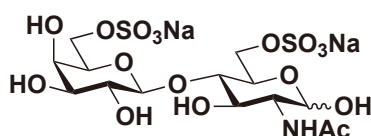
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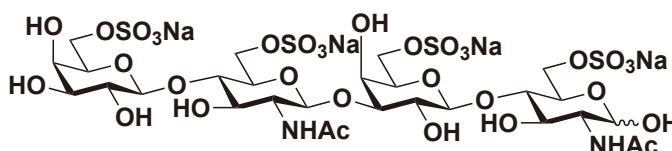
L4-L4-β-PEG₃-biotin [G0517]



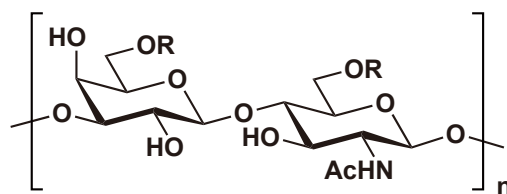
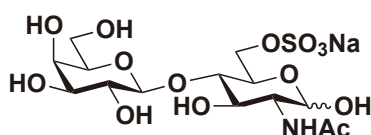
L4 [L0325]



L4-L4 [L0286]



L2 [L0324]



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