

Blood Group H ab antigen (87-N): sc-52369

BACKGROUND

Blood-group antigens are generally defined as molecules formed by sequential addition of saccharides to the carbohydrate side chains of lipids and proteins detected on erythrocytes and certain epithelial cells. The A, B and H antigens are reported to undergo modulation during malignant cellular transformation. Blood group related antigens are usually mucin-type, and are detected on erythrocytes, certain epithelial cells, and in secretions of certain individuals. Sixteen genetically and biosynthetically distinct but inter-related specificities belong to this group of antigens, including A (1 and 2), B, H (1 and 2), M, N, Lewis A, Lewis B, Lewis X, Lewis Y, and precursor type 1 chain antigens.

REFERENCES

1. Springer, G.F., Yang, H.J., Desai, P.R. and Jirgensons, B. 1976. Effect of carbamylation of lysine ϵ -amino group specific glycoproteins. *Immunol. Commun.* 4: 553-564.
2. Watkins, W.M. 1980. Biochemistry and genetics of the ABO, Lewis, and P blood group systems. *Adv. Hum. Genet.* 10: 1-136, 379-385.
3. Boren, T., Falk, P., Roth, K.A., Larson, G. and Normark, S. 1994. Attachment of *Helicobacter pylori* to human group antigens. *Science* 262: 1892-1895.
4. Appelmek, B.J., Simoons-Smit, I., Negrini, R., Moran, A.P., Aspinall, G.O., Forte, J.G., De Vries, T., Quan, H., Verboom, T., Maaskant, J.J., Ghiara, P., Kuipers, E.J., Bloemena, E., Tadema, T.M., Townsend, R.R., et al. 1996. Potential role of molecular mimicry between *Helicobacter pylori* lipopolysaccharide and host Lewis blood group antigens in autoimmunity. *Infect. Immun.* 64: 2031-2040.
5. Ilver, D., Arnqvist, A., Ogren, J., Frick, I.M., Kersulyte, D., Incecik, E.T., Berg, D.E., Covacci, A., Engstrand, L. and Borén, T. 1998. *Helicobacter pylori* adhesin binding fucosylated histo-blood group antigens revealed by retagging. *Science* 279: 373-377.

SOURCE

Blood Group H ab antigen (87-N) is a mouse monoclonal antibody raised against H-antigen on red blood cells of human origin.

PRODUCT

Each vial contains 100 μ g IgM in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Blood Group H ab antigen (87-N) is recommended for detection of Blood Group H ab antigen of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 μ g per 1×10^6 cells).

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.

SELECT PRODUCT CITATIONS

1. Cohen, M., Hurtado-Ziola, N. and Varki, A. 2009. ABO blood group glycans modulate sialic acid recognition on erythrocytes. *Blood* 114: 3668-3676.
2. Yoneyama, T., Hatakeyama, S., Tobisawa, Y., Yamamoto, H., Imanishi, K., Okamoto, T., Tokui, N., Sugiyama, N., Suzuki, Y., Kudo, S., Yoneyama, T., Hashimoto, Y., Koie, T., Kamimura, N., Fukuda, M.N. and Ohyama, C. 2013. Blood group antigen-targeting peptide suppresses anti-blood group antibody binding to antigen in renal glomerular capillaries after ABO-incompatible blood reperfusion. *Transplantation* 95: 418-425.
3. Zhang, X.F., Huang, Q., Long, Y., Jiang, X., Zhang, T., Tan, M., Zhang, Q.L., Huang, Z.Y., Li, Y.H., Ding, Y.Q., Hu, G.F., Tang, S. and Dai, Y.C. 2015. An outbreak caused by GII.17 norovirus with a wide spectrum of HBGA-associated susceptibility. *Sci. Rep.* 5: 17687.
4. Lei, S., Ryu, J., Wen, K., Twitchell, E., Bui, T., Ramesh, A., Weiss, M., Li, G., Samuel, H., Clark-Deener, S., Jiang, X., Lee, K. and Yuan, L. 2016. Increased and prolonged human norovirus infection in RAG2/IL2RG deficient gnotobiotic pigs with severe combined immunodeficiency. *Sci. Rep.* 6: 25222.
5. Lei, S., Ramesh, A., Twitchell, E., Wen, K., Bui, T., Weiss, M., Yang, X., Kocher, J., Li, G., Giri-Rachman, E., Trang, N.V., Jiang, X., Ryan, E.P. and Yuan, L. 2016. High protective efficacy of probiotics and rice bran against human norovirus infection and diarrhea in gnotobiotic pigs. *Front. Microbiol.* 7: 1699.
6. Tanaka, K., Suzuki, A., Aoki, D. and Iwamori, M. 2019. Characterization of a novel glycolipid with a difucosylated H-antigen in human blood group O erythrocytes with monoclonal antibody HMMC-1 and its detection in human uterine cervical carcinoma tissues. *Glycoconj. J.* 36: 219-226.

PROTOCOLS

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