SANTA CRUZ BIOTECHNOLOGY, INC.

Blood Group B antigen (89-F): sc-52371

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, M, Lewis A, Lewis B, Lewis X, Lewis Y and precursor type 1 chain antigens.

REFERENCES

1. Kano, K. 1967. Blood Group B antigen in cell cultures of rhesus monkey kidney. Int. Arch. Allergy Appl. Immunol. 30: 281-287.
2. Lopez, M., et al. 1978. Normal Blood Group B antigen and B transferase activity in a patient with IgM autoanti-B agglutinin. Vox Sang. 34: 18-21.
3. Paul, L.C., et al. 1978. Blood Group B antigen on renal endothelium as the target for rejection in an ABO-incompatible recipient. Transplantation 26: 268-271.
4. Dybus, S. and Aminoff, D. 1983. Action of α-galactosidase from Clostridium s on Blood Group B antigen of erythrocytes. The effect on the viability of erythrocytes in circulation. Transfusion 23: 244-247.
5. Rouger, P., et al 1983. Study of Blood Group B antigen with a specific monoclonal antibody (anti-B, b-183). Immunology 49: 77-82.
6. Yoshida, A., et al. 1985. Suppressed expression of Blood Group B antigen and blood group galactosyltransferase in a preleukemic subject. Blood 66: 990-992.
7. Yamada, M., et al. 1995. Expression of a Blood Group B antigen-related glycoepitope in human dorsal root ganglion cells. J. Neurol. Scie. 126: 178-183.
8. Yi, W., et al. 2005. *Escherichia coli* O86 O-antigen biosynthetic gene cluster and stepwise enzymatic synthesis of human Blood Group B antigen tetrasaccharide. J. Am. Chem. Soc. 127: 2040-2041.

CHROMOSOMAL LOCATION

Genetic locus: ABO (human) mapping to 9q34.2.

SOURCE

Blood Group B antigen (89-F) is a mouse monoclonal antibody raised against blood B antigen of human origin.

PRODUCT

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

STORAGE

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

APPLICATIONS

Blood Group B antigen (89-F) is recommended for detection of Blood Group B antigen of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and flow cytometry (1 µg per 1 x 10^6 cells).

SELECT PRODUCT CITATIONS

1. Gao, C., et al. 2014. Carbohydrate sequence of the prostate cancer-associated antigen F77 assigned by a mucin O-glycome designer array. J. Biol. Chem. 289: 16462-16477.
2. Hedberg, P., et al. 2021. Red blood cell blood group A antigen level affects the ability of heparin and PfEMP1 antibodies to disrupt *Plasmodium falciparum* rosettes. Malar. J. 20: 441.

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.