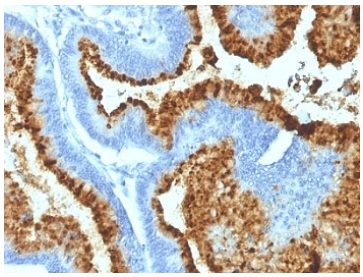
Blood Group B Antibody / Blood Typing Marker Antibody [clone HEB-20] (V2552)

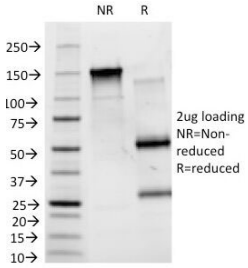
Catalog No.	Formulation	Size
V2552-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2552-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2552SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V2552IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	HEB-20
Purity	Protein G affinity
UniProt	P16442
Localization	Cell surface
Applications	Immunofluorescence: 2-4ug/ml Immunohistology (formalin-fixed): 1-2ug/ml for 30 min at RT
Limitations	This Blood Group B Antibody / Blood Typing Marker Antibody is available for research use only.



Blood Group Antigen B Antibody Colon Carcinoma IHC. Immunohistochemistry analysis of Blood Group Antigen B expression in FFPE human colon carcinoma tissue using Blood Group Antigen B Antibody / Blood Typing Marker clone HEB-20. Strong HRP-DAB brown membranous and apical staining is observed throughout neoplastic epithelial cell populations, highlighting preservation of blood group B associated carbohydrate determinants on the tumor cell surface. Surrounding stromal elements are largely negative, producing a distinct contrast between antigen-positive epithelial structures and the supporting tumor microenvironment. Blood group B antigens are carbohydrate epitopes carried on glycolipids and glycoproteins that contribute to ABO blood group classification and epithelial cell surface glycosylation patterns. Clone HEB-20 demonstrates robust detection of Blood Group Antigen B in human colon carcinoma tissue. Hematoxylin counterstain (blue).



SDS-PAGE Analysis of Purified, BSA-Free ABO Antibody (clone HEB-20). Confirmation of Integrity and Purity of the Antibody.

Description

Blood group B antigen is a carbohydrate determinant of the ABO blood group system that is generated through sequential glycosylation of precursor carbohydrate structures present on glycolipids and glycoproteins. Blood Group B Antibody / Blood Typing Marker Antibody (clone HEB-20) recognizes human blood group B associated carbohydrate epitopes and is useful for investigating blood group antigen distribution in erythrocytes, epithelial tissues, and tumor specimens. Blood Group B Antibody, also known as ABO Antigen B antibody and blood type B antibody in the literature, targets one of the most clinically significant carbohydrate antigens involved in transfusion compatibility and blood group classification.

The ABO blood group system is determined by glycosyltransferase enzymes that modify precursor H antigens to generate the characteristic A and B antigenic structures. Individuals expressing the B allele produce a terminal galactose-containing carbohydrate determinant recognized as blood group B antigen. These carbohydrate modifications are displayed on the surface of erythrocytes but are also found on numerous epithelial and endothelial cell populations throughout the body. As a result, ABO antigens are relevant not only to transfusion medicine but also to glycobiology, developmental biology, and studies of cell surface recognition.

Blood group related antigens comprise a broader family of structurally related carbohydrate determinants carried by both glycolipids and glycoproteins. This family includes A, B, H, Lewis A, Lewis B, Lewis X, Lewis Y, and precursor chain antigens that participate in complex glycosylation networks. Many of these structures are expressed on epithelial surfaces and secreted mucins, where they contribute to cellular interactions and tissue-specific carbohydrate signatures.

Altered expression of ABO blood group antigens has been reported during malignant transformation. Changes in glycosyltransferase activity and glycan biosynthesis can influence the abundance and distribution of carbohydrate determinants in tumor tissues. Blood Group B Antibody therefore serves as a valuable tool for examining cell surface glycosylation patterns and blood group associated antigen expression in cancer research. The blood typing marker concept extends beyond erythrocyte identification and includes investigation of epithelial antigen retention, loss, or redistribution during disease progression.

Clone HEB-20 was developed for recognition of human blood group B associated carbohydrate determinants and has been reported to react with erythrocytes and vascular epithelium expressing blood group B antigens. Immunohistochemical analysis of human colon carcinoma demonstrates strong membranous and apical staining of tumor

epithelial cells, while surrounding stromal tissue remains largely negative. This staining profile is consistent with expression of blood group associated carbohydrate structures on epithelial tumor cells and highlights the utility of clone HEB-20 for tissue-based glycobiology investigations. A Blood Group B antibody is suitable for detecting blood group B antigen expression in relevant research applications including immunohistochemistry and studies of blood group associated carbohydrate biology.

Researchers studying blood group classification, transfusion biology, and carbohydrate antigen expression may also be interested in our Blood Group Antigen B Antibody landing page featuring antibodies against ABO blood group B determinants and related glycobiology targets.

Because blood group antigens represent biologically important cell surface carbohydrate structures carried by glycolipids and glycoproteins, researchers may also find value in our Cell Biology Antibodies landing page covering markers involved in cell recognition, adhesion, signaling, and membrane-associated biology.

Application Notes

Optimal dilution of the Blood Group B Antibody / Blood Typing Marker Antibody should be determined by the researcher.

1. Staining of formalin-fixed tissues requires boiling tissue sections in 10mM Citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes
2. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

A mixture of erythrocytes of group B and glycoprotein fraction isolated from saliva of secretors with blood group B was used as the immunogen for the ABO antibody.

Storage

Store the ABO antibody at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

ABO Antigen B antibody, Blood group B antigen antibody, Blood type B antibody, ABO blood typing antibody, Erythrocyte blood group B antibody

Copyright © NSJ Bioreagents. All rights reserved.