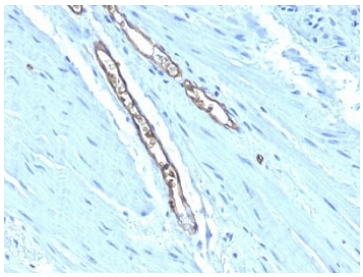
Blood Group Antigen A Antibody / ABO Antigen A Antibody [clone HE-193] (V2550)

Catalog No.	Formulation	Size
V2550-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2550-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2550SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Citations (5)

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgM, kappa
Clone Name	HE-193
Purity	PEG precipitation
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 Antigen A Antibody / ABO Antigen A Antibody is available for research use only.



Blood Group Antigen A Antibody Colon Carcinoma IHC. Immunohistochemistry staining of FFPE human colon carcinoma tissue using Blood Group Antigen A Antibody demonstrates distinct membranous HRP-DAB brown staining within gland-forming epithelial tumor cells. The staining pattern is consistent with expression of Blood Group Antigen A / ABO Antigen A, a terminal carbohydrate epitope of the ABO blood group system expressed on cell surface glycoproteins and glycolipids. Clone HE-193 highlights ABO Antigen A-positive epithelial structures within the tumor, supporting the utility of this published antibody for studies of blood group antigen expression, glycobiology, and cell surface carbohydrate distribution in human tissues. Formalin-fixed, paraffin-embedded tissue stained with clone HE-193.

Description

Blood Group Antigen A is a carbohydrate antigen belonging to the ABO blood group system and is expressed on erythrocytes, epithelial cells, endothelial cells, and numerous other cell types. The Blood Group Antigen A Antibody is useful for investigating histo-blood group antigen expression, glycobiology, cell surface carbohydrate structures, and tissue-specific patterns of ABO antigen distribution. Blood Group Antigen A is generated through enzymatic modification of precursor oligosaccharides by glycosyltransferases encoded within the ABO locus, resulting in characteristic carbohydrate epitopes that define the A blood group phenotype. As one of the best-known human cell surface antigen systems, the ABO blood group system remains important in transfusion medicine, transplantation biology, immunology, and pathology research.

Blood Group Antigen A antibody, also referred to as ABO Antigen A antibody, Blood Group A antibody, and A Antigen antibody in the literature, recognizes carbohydrate determinants associated with the human blood group A system. Clone HE-193 antibody has been utilized in published studies and recognizes human blood group A antigens including monofucosyl and difucosyl A structures expressed on chain types 1, 2, 3, 4, 5, and 6. Clone HE-193 also reacts with Forssmann antigen, a structurally related glycolipid antigen that shares features with blood group carbohydrate epitopes. These binding characteristics make clone HE-193 valuable for studies of glycan expression, carbohydrate antigen distribution, and cell surface glycobiology.

The ABO blood group system extends far beyond its traditional role in red blood cell typing. Blood group antigens are expressed throughout a variety of epithelial, endothelial, glandular, and secretory tissues where they may influence cell-cell interactions, host-microbe recognition, and immune system communication. Expression patterns are regulated by tissue-specific glycosylation pathways, and alterations in ABO antigen expression have been reported during development, cellular differentiation, and disease progression. Consequently, blood group antigens have become useful markers for investigations of tissue biology and carbohydrate-mediated cellular processes.

Because Blood Group Antigen A is a terminal carbohydrate structure displayed on glycoproteins and glycolipids, it provides a valuable model for studying glycobiology and membrane-associated carbohydrate expression. Cell surface glycans participate in diverse biologic functions including cellular adhesion, immune recognition, signaling, and interactions with microorganisms. Research examining blood group antigen expression continues to contribute to understanding of glycosylation pathways and mechanisms regulating cell surface carbohydrate diversity in normal and diseased tissues.

Published studies utilizing clone HE-193 antibody have supported investigations of ABO antigen expression and carbohydrate epitope distribution across a variety of tissues and biologic systems. A Blood Group Antigen A antibody can support research involving immunohematology, glycobiology, epithelial differentiation, cell surface glycosylation, and blood group antigen biology. General antibody-based approaches may be used to evaluate Blood Group Antigen A expression in a variety of research applications. NSJ Bioreagents offers clone HE-193 antibody to support studies of ABO antigen biology and glycan-mediated cellular processes.

Researchers interested in blood group carbohydrate epitopes and ABO antigen biology may also wish to explore our

Blood Group Antigen A Antibody landing page featuring antibodies against A antigen targets used in glycobiology and immunohematology research.

For additional targets involved in cell surface glycosylation, carbohydrate-mediated cellular interactions, and membrane-associated biology, visit our Cell Biology Antibodies landing page highlighting markers that regulate cellular structure, communication, and differentiation.

Application Notes

Optimal dilution of the Blood Group Antigen A Antibody / ABO Antigen A 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

Immunogen

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

Storage

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

Alternate Names

A Blood Group Antigen antibody, Blood Type A Antibody, ABO A Antigen Antibody, Blood Group A Antibody, A Antigen Antibody

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