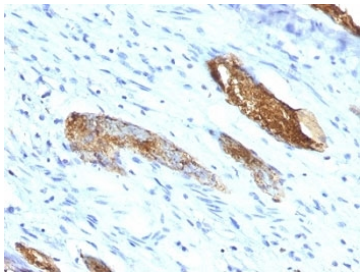
A Antigen Antibody / Blood Group Antigen A Antibody [clone 33C13] (V2547)

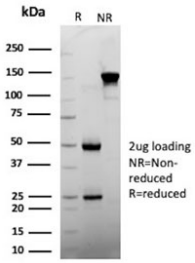
Catalog No.	Formulation	Size
V2547-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V2547-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V2547SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

Availability	1-2 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	33C13
Purity	Protein G affinity chromatography
UniProt	P16442
Localization	Cell surface
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This A Antigen Antibody / Blood Group Antigen A Antibody is available for research use only.



A Antigen Antibody Colon Carcinoma IHC. Immunohistochemistry staining of FFPE human colon carcinoma tissue using A Antigen Antibody demonstrates distinct membranous HRP-DAB brown staining in discrete epithelial tumor cell populations. 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 33C13 highlights A antigen-positive tumor cells and supports the utility of this antibody for studies of blood group antigen expression, glycobiology, and cell surface carbohydrate distribution in human tissues. Heat-induced epitope retrieval was performed by boiling tissue sections in 10 mM citrate buffer (pH 6.0) for 10-20 minutes, followed by cooling at room temperature prior to HRP-DAB detection.



SDS-PAGE analysis of purified, BSA-free Blood Group Antigen A antibody (clone 33C13) as confirmation of integrity and purity.

Description

Blood Group Antigen A is a terminal carbohydrate epitope of the ABO blood group system that is expressed on erythrocytes, epithelial cells, endothelial cells, and numerous secretory tissues. The A Antigen Antibody is useful for investigating cell surface glycobiology, blood group antigen expression, and tissue-specific glycosylation patterns. Blood Group Antigen A is generated through enzymatic modification of precursor oligosaccharides by glycosyltransferases encoded within the ABO locus, producing characteristic carbohydrate structures that define the A blood group phenotype. As a result, A antigen expression remains an important area of study in immunohematology, pathology, and glycobiology research.

A Antigen antibody, also referred to as Blood Group Antigen A antibody, ABO Antigen A antibody, and Blood Group A antibody in the literature, recognizes carbohydrate determinants associated with the human ABO blood group system. Clone 33C13 antibody detects A antigen expression on cell surface glycoproteins and glycolipids and is useful for studies examining carbohydrate epitope distribution across normal and diseased tissues. Blood group antigens are among the most extensively characterized cell surface carbohydrate markers and continue to serve as important tools for investigating tissue-specific glycosylation and cellular differentiation.

Although the ABO blood group system is best known for its importance in transfusion medicine, ABO antigens are expressed in a broad range of non-hematopoietic tissues. Epithelial, endothelial, glandular, and secretory cells frequently display blood group carbohydrate structures that participate in cell-cell interactions and biologic recognition processes. Altered expression of Blood Group Antigen A has been reported in developmental biology, epithelial differentiation, and disease-associated changes in glycosylation. Consequently, A antigen expression is frequently evaluated in studies examining cell surface carbohydrate diversity and tissue-specific glycan regulation.

As a terminal carbohydrate structure present on glycoproteins and glycolipids, Blood Group Antigen A contributes to the complex glycocalyx that surrounds the cell surface. Cell surface glycans participate in diverse biologic functions including cellular adhesion, microbial recognition, immune interactions, and membrane-associated signaling events. Investigation of A antigen expression therefore provides insight into broader mechanisms governing glycobiology and carbohydrate-mediated cellular processes.

Research involving Blood Group Antigen A continues to contribute to understanding of blood group antigen biology, glycosylation pathways, and carbohydrate epitope expression. A A Antigen antibody can support studies of glycobiology, immunohematology, epithelial differentiation, cell surface glycosylation, and tissue-associated carbohydrate expression. General antibody-based approaches may be used to evaluate Blood Group Antigen A expression in a variety of research applications. NSJ Bioreagents offers clone 33C13 antibody to support investigations of ABO antigen biology and glycan-mediated cellular interactions.

Researchers seeking additional information on ABO Antigen A expression and blood group carbohydrate biology may also be interested in our Blood Group Antigen A Antibody page featuring the published HE-193 clone and extensive characterization of A antigen epitopes.

Application Notes

Optimal dilution of the A Antigen Antibody / Blood Group Antigen A Antibody should be determined by the researcher.

Immunogen

Mucin isolated from an ovarian cyst fluid was used as the immunogen for the Blood Group Antigen A / A Antigen antibody.

Storage

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

Alternate Names

ABO Antigen A antibody, Blood Group A antibody, Blood Type A antibody, ABO A Antigen antibody, Histo-blood Group A antibody

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