abcam

ab33404

Anti-ABO antibody [BRIC231]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.09% Sodium azide Constituents: Tris buffer
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing Histo-blood group ABO system transferase protein. The exact immunogen used to generate this antibody is proprietary information. Database link P16442
Clone number	BRIC231
Purification technique	Affinity purification Protein G
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Expected

Species	Human
Dilution info	-
Notes	ab170190 - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

Agg

Expected

Species	Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information Histo-blood group ABO system transferase

Function	This protein is the basis of the ABO blood group system. The histo-blood group ABO involves three carbohydrate antigens: A, B, and H. A, B, and AB individuals express a glycosyltransferase activity that converts the H antigen to the A antigen (by addition of N-acetyl-alpha-D-galactosamine (GalNAc)) or to the B antigen (by addition of galactose (Gal)), whereas O individuals lack such activity and express the H antigen precursor unmodified. Catalyzes the transfer of GalNAc or Gal in an alpha1,3 linkage to the terminal Gal of all five types of naturally occurring H antigens, forming the antigenic structures of the A and B blood groups.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The ABO blood group system frequently referred to as ABO is a critical component in determining blood type. It involves the presence of antigens on the surface of red blood cells which are glycosyltransferase enzymes that transfer sugar residues onto the H antigen. The gene responsible for this system is located on chromosome 9 and the variations in the gene produce the A B and O blood types.

	These glycoproteins and glycolipids confer blood group specificity. ABO is found in the erythrocytic lineage and is an integral part of the blood plasma context.
Biological function summary	The ABO proteins modulate immune response mechanisms. They participate in the formation of specific antigens and antibodies that define the ABO blood group system. These proteins are not part of a larger complex but interact closely with components in the immune system. In individuals the presence or absence of antigen types influences immune activity and the antigen-antibody structure is essential in transfusion medicine.
Pathways	Researchers link the ABO system with several immune response pathways. The system integrates into the complement system and humoral immunity affecting compatibility in blood transfusions. It is indirectly related to proteins in the complement cascade and these interactions facilitate or hinder immune reactions during transfusions and organ transplants. The pathway involvement highlights the system's significance in cellular communication and immune mobilization.
Associated diseases and disorders	ABO incompatibility can lead to hemolytic disease of the newborn and transfusion reactions. In such contexts the presence of incompatible ABO antigens triggers immune responses resulting in adverse events. It also indirectly connects to diseases like gastric cancer where blood type prevalence indicates varying disease risk profiles. The interaction with proteins such as the Rh factor can exacerbate these conditions showing how ABO status affects susceptibility and symptom severity.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:

Terms & Conditions.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.