

# ANTISERA

*Ensure Your Blood Compatibility with our Product Range...*

The ABO blood group system is a classification system for the antigens of human blood discovered by Karl Landsteiner in 1900. There are four blood groups : A, B, AB and O.

The Rh blood group system is the second most significant system for blood grouping.

Rh factor refer to Rh D antigen only. Determination of Rh factor along with ABO is essential for defining the Rh +ve or Rh -ve status of the individual.

Around 85% of the human population is Rh +ve while 15% is Rh -ve.

The ABO & Rh systems are the most significant blood group systems from the clinical point of view.

## *JML Range of Blood Grouping...*

- Anti-A Monoclonal
- Anti-B Monoclonal
- Anti-AB Monoclonal
- Anti-D (IgM) Rh<sub>1</sub> Monoclonal
- Anti-D (IgG+IgM) Rh<sub>1</sub> Monoclonal
- Anti-H Lectin
- Anti-A<sub>1</sub> Lectin
- Anti Human Serum
- Bovine Albumin

# ABO BLOOD GROUPING

(Anti-A, Anti-B, Anti-AB, Anti-D (IgM) & Anti-D (IgG + IgM) Monoclonal)

The routine practice of blood typing and cross-matching blood products prevent adverse transfusion reactions caused by ABO antibodies. ABO blood grouping is used to check the RBCs & plasma compatibility of donor and recipient before blood transfusion. ABO blood group have been used as a genetic marker in the studies of association with infectious & non-infectious disease. It is also significant for determination of Rh incompatibility between mother and foetus.

## Salient Features:

- ◆ Excellent Sensitivity, detect even weaker groups with ease
- ◆ Excellent Avidity
- ◆ Excellent Intensity : Clearly visible agglutination
- ◆ High Specificity with no cross reactivity
- ◆ Longer Shelf Life : 18 months
- ◆ Batch to Batch consistency
- ◆ Slide & Tube test results show excellent co-relation



## Pack Size:

5 & 10 ml.

## ANTI-H LECTIN

Ulex europaeus lectin for slide and Tube Tests



Anti-H Lectin is used to show the presence of 'H' antigen on human red blood cells. The 'H' antigen is a precursor of A & B antigen. Individuals that test as type 'O' by ABO blood group system may have Bombay Phenotype (hh). These rare individuals with Bombay Phenotype do not express 'H' antigen and therefore do not bind A or B antigen. These individuals are compatible with Bombay Phenotype Group only.

## Salient Features:

- ◆ Excellent Avidity
- ◆ Clearly visible agglutination
- ◆ Shelf Life : 24 months at 2-8°C
- ◆ Batch to Batch consistency
- ◆ High Specificity : No cross-reactivity
- ◆ Convenient Pack Size : 5 ml.

## ANTI-A<sub>1</sub> LECTIN

Qualitative test for the detection of A<sub>1</sub> Antigen on Human Red Blood Cells



Anti-A<sub>1</sub> Lectin is specific for A<sub>1</sub> cells. The 'A' antigen is subdivided into A<sub>1</sub> & A<sub>2</sub> cells. Approximately 80% of the population of blood group A is A<sub>1</sub> while the remaining 20% are A<sub>2</sub> or weaker subgroup. So, it is important to determine A<sub>1</sub> or A<sub>2</sub> blood group before any blood transfusion process.

## Salient Features:

- ◆ Purified Seeds extract of Dolichos biflorus
- ◆ Clearly visible agglutination
- ◆ Excellent Avidity
- ◆ Shelf Life : 24 months at 2-8°C
- ◆ High Specificity : No cross-reactivity
- ◆ Convenient Pack Size : 5 ml.

## ANTI-HUMAN SERUM

(Coomb's Reagent)



Anti Human Serum is used in the direct and indirect antiglobulin test to detect antibodies and/or complement on RBCs.

**Direct Coombs test :** It is used in immune mediated hemolytic anaemia, auto immunity, alloimmunity or drug induce immune mediated mechanism.

**Indirect Coombs test :** It is significant for pre-natal testing of pregnant woman for antibodies that may cause Haemolytic Disease of New born, compatibility testing, antibody identification, RBC Phenotyping & Titration Studies.

## Salient Features:

- ◆ High Sensitivity
- ◆ Shelf Life : 24 months at 2-8°C
- ◆ Highly Specific
- ◆ Convenient Pack Size : 2, 5 & 10 ml.

# BOVINE ALBUMIN

22% Protein Concentration

Bovine Albumin is primarily used to enhance the reactivity of blood group antibodies, either in direct agglutination tests or indirect antiglobulin test. Bovine Albumin is frequently used as a control for Rh typing, for compatibility testing, antibody detection, identification and titration. It is also used as a surface coating agent. Bovine albumin stabilizes the protein/antibodies.

## Salient Features:

- ◆ Ideal for sensitive immunodiagnostic and protein chemistry applications
- ◆ Shelf Life : 24 months at 2-8°C
- ◆ Batch to Batch consistency
- ◆ Convenient Pack Size : 2, 5 & 10 ml.



## \* Facts At a Glance

- International Society of Blood Transfusion recognized 29 different blood group systems, out of which ABO & Rh are most significant.
- Blood type 'O' is most common around the world. Around 46% of human population has 'O', 40% have 'A', 10% have 'B' & 4% have 'AB' blood group.
- The 'D' antigen is highly immunogenic and if Rh D +ve blood is transfused to Rh D -ve recipient, Rh D -ve recipient develop anti-D alloantibodies.
- D<sup>u</sup> is the weaker variant of 'D' antigen. About 0.2% to 1% of individuals carry D<sup>u</sup> antigen.
- The clinical significance of weak 'D' antigen is that transfusion of such red cells to an Rh D immunized person can result in Haemolytic Transfusion Reaction.
- Haemolytic Disease of New born (HDN) is most commonly triggered by 'D' antigen, so routine screening using Coombs test is required to prevent HDN.
- The Bombay Phenotype was first discovered in Bombay, in India by Dr. Y. M. Bhende in 1952. Bombay blood is the rarest of the rare blood type completely outside the ABO system.
- The Bombay Phenotype is more common in India than other parts of the world. The Bombay Phenotype present in about 1 in 10,000 individuals in India.
- Monoclonal antibodies produced by Hybridoma technology are derived from a single antibody producing parent cell and react with single epitope of the antigen. Monoclonal antibodies have higher sensitivity than Polyclonal antibodies.

Source : <http://www.krepublishers.com>

Source : <http://medind.nic.in/maa/t05/i4/maat05i4p348.pdf>

\* Note : This information is provided for the Scientific Community. It is not for commercial or promotional purpose.

For further information, please contact:

**J. Mitra & Co. Pvt. Ltd.**

A-180-181, Okhla Industrial Area, Phase-1, New Delhi - 110 020 - INDIA  
Phone : +91-1126818971, 72, 73, 41612545 Fax : +91-11-26818970, 26810945  
E-mail : [jmitra@jmitra.co.in](mailto:jmitra@jmitra.co.in) Internet : [www.jmitra.co.in](http://www.jmitra.co.in)