













## SBio Anti-A<sub>1</sub> Lectin

Dolichos Biflorus Lectin for Slide and Tube Tests

REF	90200310	90200010	90200005
Pack	3 x 10 ml	10 ml	5 ml

 Store at 2-8°C	 Manufacturer	 Batch Number	 Description of reagent
 Use by (Last day of stated month)	 Consult instructions for use	 This side up	 Harmful if swallowed. Do not breathe vapour. If swallowed, seek medical advice immediately and show this container or label.
 Date of Manufacture	 Catalogue Number	 In vitro Diagnostic Medical Device	 Avoid release to the environment. Refer to special instructions.

### SUMMARY:

Human red blood cells possessing the A antigen can be broadly subdivided into two main subgroups namely A<sub>1</sub> and A<sub>2</sub> based on their reaction with Anti-A<sub>1</sub> lectin. A<sub>2</sub> subgroups comprises of weaker subgroups of A such as A<sub>2</sub>, A<sub>3</sub>, A<sub>4</sub>, A<sub>5</sub>, A<sub>6</sub>, A<sub>7</sub>, A<sub>8</sub>, etc.

Group A red blood cells which agglutinate with Anti-A<sub>1</sub> lectin are classified as subgroup A<sub>1</sub>, whereas red blood cells which do not agglutinate with Anti-A<sub>1</sub> lectin are classified as subgroup A<sub>2</sub>. It is estimated that about 80% of the group A population are A<sub>1</sub>, and the remaining A<sub>2</sub> or weaker. Anti-A<sub>1</sub> lectin is especially useful in selecting blood for an A<sub>2</sub> or A<sub>2</sub>B recipient whose blood may contain Anti-A<sub>1</sub> antibodies.

### REAGENT

SBio Anti-A<sub>1</sub> lectin is a ready to use purified extract of *Dolichos biflorus* seeds that is carefully calibrated to differentiate most A<sub>1</sub> red cells from A<sub>2</sub> red cells. It contains a phytohaemagglutinin, which is virtually specific for A<sub>1</sub> red blood cells in humans.

Each batch of reagent undergoes rigorous quality control at various stages of manufacturing for its specificity, avidity and titre.

### REAGENT STORAGE AND STABILITY

- Store the reagent at 2-8°C. DO NOT FREEZE.
- The shelf life of the reagent is as per the expiry date mentioned on the reagent vial label. Do not use reagents after the expiry date.

### PRINCIPLE

Human A group red blood cells possessing 2.5 - 4 X 10<sup>5</sup> 'A' sites per red cell will agglutinate in the presence of seed extract (lectins) containing phytohaemagglutinin specifically directed towards it. Agglutination of 'A' group red blood cells with SBio Anti-A<sub>1</sub> lectin is a positive test result and identifies the red cell as A<sub>1</sub> red cell. No agglutination of 'A' group red blood cells with SBio Anti-A<sub>1</sub> lectin is a negative test result and identifies the red cells as A<sub>2</sub> or weaker subgroups.

### NOTE

- In vitro diagnostic reagent for laboratory and professional use only. Not for medicinal use.
- The reagent contains sodium azide 0.1% as preservative. Avoid contact with skin and mucosa. On disposal flush with large quantities of water.
- Extreme turbidity may indicate microbial contamination / reagent deterioration. Such reagents should be discarded.
- Only a clean and dry glass slide for slide test or test tube must be used for performing the tube test.
- It is necessary to use the calibrated dropper provided in the reagent vial to dispense a reagent drop.
- Do not use damaged or leaking reagents.

### SAMPLE COLLECTION AND PREPARATION

No special preparation of the patient is required prior to sample collection by approved techniques. Samples should be stored at 2-8°C, if not tested immediately. Do not use haemolysed samples. Anticoagulated blood using various anticoagulants should be tested within the below mentioned time period:

EDTA or Heparin	: 2 days
Sodium citrate or Sodium oxalate	: 14 days
ACD or CPD	: 28 days

### ADDITIONAL MATERIAL REQUIRED FOR SLIDE AND TUBE TESTS

Glass slides (60 x 85 mm), Test tubes (12 x 75 mm), pipettes, isotonic saline, Centrifuge, Timer, Mixing sticks.

### TEST PROCEDURE

Bring all reagents and samples to room temperature before testing.

#### Slide Test

- Prepare a 10% suspension of the red blood cells to be tested in isotonic saline.
- Place one drop of SBio Anti-A<sub>1</sub> lectin on a clean glass slide.
- Pipette 100µl of the cell suspension on the slide.
- Mix well with a mixing stick uniformly over an area of approximately 2.5 cm<sup>2</sup>.
- Rock the slide gently, back and forth.
- Observe for agglutination macroscopically at one minute.

#### Tube Test

- Prepare a 5% suspension of the red cells to be tested in isotonic saline.
- Place one drop of SBio Anti-A<sub>1</sub> lectin into a labelled test tube.
- Pipette into the test tube, 50µl of the test red cell suspension.
- Centrifuge for 1 minute at 1000 rpm (125 g) or 20 seconds at 3400 rpm (1000 g).
- Gently resuspend the cell button, observing for agglutination macroscopically.

### INTERPRETATION OF RESULTS

#### Slide and Tube Tests

Agglutination is a positive test result and indicates the presence of A<sub>1</sub> red cells. Do not interpret peripheral drying or fibrin strands as agglutination. No agglutination is a negative test result and indicates the absence of A<sub>1</sub> antigen.

### REMARKS

- A<sub>1</sub> antigen is not fully expressed on the red blood cells of newborns below one year of age, hence false negative results may occur.
- It is strongly recommended that known A<sub>1</sub> and A<sub>2</sub> cells should be occasionally run on a daily basis to control reagent performance and validate test results.

3. A<sub>1</sub>- A<sub>2</sub> (A<sub>mn</sub>) cells may agglutinate moderately with SBio Anti-A, lectin. These should be tested further with Anti-H lectin to confirm A<sub>mn</sub> cells.
4. As undercentrifugation or overcentrifugation can lead to erroneous results, it is recommended that each laboratory calibrate its own equipment and determine the time required for achieving the desired results.
5. Do not interpret peripheral drying or fibrin strands as agglutination.

#### PERFORMANCE CHARACTERISTICS

In an internal evaluation 127 samples with known red cell phenotypes were tested which included A<sub>1</sub> cells, A<sub>2</sub> cells, A<sub>1</sub>B, A<sub>2</sub>B cells, B cells and O cells.

	Red Cell Phenotype						Total
	A <sub>1</sub>	A <sub>1</sub> B	A <sub>2</sub>	A <sub>2</sub> B	B	O	
No. of samples	37	3	5	0	35	47	127
No. of samples reactive with SBio Anti-A, Lectin	37	3	0	0	0	0	40
No. of samples non-reactive with SBio Anti-A, Lectin	0	0	5	0	35	47	87

SBio Anti-A, lectin demonstrated 100 % specificity for A<sub>1</sub> phenotype.

#### WARRANTY

This product is designed to perform as described on the label and the package insert. The manufacturer disclaims any implied warranty of use and sale for any other purpose.

#### BIBLIOGRAPHY

1. Lee H.H., Rouger P., Germain C., Muller A. & Salmon C. (1983). The production and standardization of monoclonal antibodies as AB blood group typing reagents, Symposium of International Association of Biological standardization on monoclonal antibodies.
2. Blood Transfusion in Clinical Medicine, P.L. Mollison, C. P. Engelfreit, Marcela Contreras, 10th Ed., 1997, Blackwell Scientific Publications.
3. AABB Technical Manual, 13th Ed., 1999.
4. Human Blood Groups by Geoff Daniels, 1st Ed., Blackwell Science, Oxford 1995.
5. HMSO, Guidelines for the Blood Transfusion Services., 2nd Ed., 1994.

 Manufactured by:

#### TULIP DIAGNOSTICS (P) LTD.

Plot Nos. 92/96, Phase II C, Verna Industrial Estate,  
Verna, Goa - 403 722, INDIA.

**Regd. Office:** Gitanjali, Tulip Block, Dr. Antonio Do Rego Bagh,  
Alto Santacruz, Bambolim Complex P.O., Goa - 403 202, INDIA.

Website: [www.tulipgroup.com](http://www.tulipgroup.com) Email: [sales@tulipgroup.com](mailto:sales@tulipgroup.com)

Manufactured for:

  
Singapore Biosciences PTE Ltd.

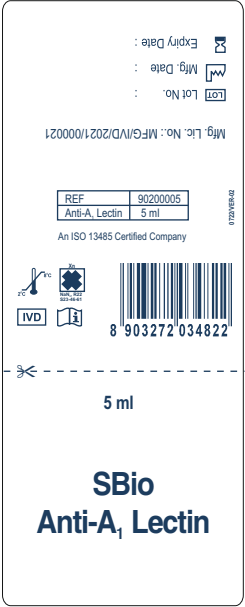
11 Yishun Street 51, #04-23, The Criterion,  
Singapore 767971

EC REP

CMC Medical Devices & Drugs S.L., C/ Horacio Lengo No. 18, CP 29006, Malaga, Spain

# SBIO A1 lectin-5 ml

Size : 32 x 80 mm



Size : 60 x 26 mm

