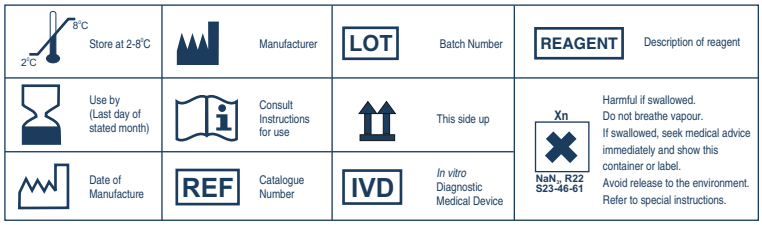
SBio Anti-H Lectin

Ulex Europaeus Lectin for Slide and Tube Tests

REF	90210310	90210010	90210005
Pack	3 x 10 ml	10 ml	5 ml



SUMMARY

The H antigen is a basic blood group antigen present in human beings. There is considerable variation in the H antigen content in different individuals of the same ABO group but the general pattern indicates their strength as $O>A_2>A_2B>B>A_1>A_1B$. Water soluble H substance can also be demonstrated in saliva or body fluids of individuals who are secretors.

Human red blood cells that do not agglutinate with Anti-H lectin are classified as Bombay Phenotype (Oh). The Bombay Phenotype is more common in India than other parts of the world and the estimated gene frequency of Oh phenotype in Bombay is 0.0066%.

REAGENT

SBio Anti-H lectin is a ready to use purified extract of Ulex europaeus seeds. It contains a phytohaemagglutinin, which is virtually specific for the H antigen on human red blood cells.

SBio Anti-H lectin is used for recognition of the H antigen on human red blood cells. It is useful, especially for assessing the H secretor status of group 'O' individuals and also in differential grouping of A_{int} subgroup along with Anti-A_1 lectin.

REAGENT STORAGE AND STABILITY

a) Store the reagent at 2-8°C. DO NOT FREEZE.
b) 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 red blood cells possessing the H antigen will agglutinate in the presence of seed extract (lectins) containing phytohaemagglutinin specifically directed towards it. Water soluble H substance present in saliva neutralises Anti-H lectin. Agglutination of red blood cells / Neutralization of Anti-H lectin by saliva is a positive test result and indicates the presence of H substance on/in the red cell / saliva respectively.

No agglutination / Neutralization of Anti-H lectin is a negative test result and indicates the absence of H substance on / in the red cell / saliva respectively.

NOTE

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

SAMPLE COLLECTION AND PREPARATION

For recognition of H antigen on human red blood cells

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

For assessing secretor status in human saliva

a) Collect about 2 ml of fresh saliva in a glass tube and incubate in a boiling water bath for 10 minutes.
b) Centrifuge at 3400 rpm (l000 g) for 10 minutes.
c) Use the clear supernatant immediately for the study or freeze immediately if to be tested later.

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. “O” phenotype red blood cells positive for H antigen.

TEST PROCEDURE

Bring all reagents and samples to room temperature before testing.

Slide Test

1. Place one drop of SBio Anti-H lectin on a clean glass slide.
2. Add 50µl of whole blood to be tested on the slide and mix well with a mixing stick uniformly over an area of approximately 2.5 cm^2.
3. Rock the slide gently, back and forth.
4. Observe for agglutination macroscopically at two minutes.

Tube Test

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

Tube Test (Secretor Status)

1. Take two clean glass test tubes labeled as No. 1 and 2.
2. Place two drops of SBio Anti-H lectin into each tube.
3. Pipette 100µl of saliva in tube No.1 and add 100µl of saline in tube No.2 and mix well.
4. Incubate at room temperature for ten minutes.
5. Add 50µl of 5% cell suspension of known “O” red cells reactive

with SBio Anti-H lectin to both the tubes, mix well and Incubate at room temperature for 5 minutes.

6. Centrifuge for one minute at 1000 rpm (125 g) or 20 seconds at 3400 rpm (1000 g).
7. Gently resuspend the cell button in each test tube observing for agglutination macroscopically.

INTERPRETATION OF RESULTS

Slide and Tube Tests

Agglutination is a positive test result and indicates the presence of H antigen.

No agglutination is a negative test result and indicates the absence of H antigen and the red cells being of Bombay phenotype.

Tube Test (Secretor Status)

Agglutination of the red cells in tube No.1 indicates that the Anti-H lectin has not been neutralised and the patient is a non-secretor.

No agglutination of the red cells in tube No. 1 indicates the Anti-H lectin has been neutralised and the patient is a secretor.

The above interpretation is valid only if the tube No.2 shows agglutination.

REMARKS

1. Do not interpret peripheral drying or fibrin strands as agglutination.
2. It is recommended that known negative and positive cells must be included as controls with each test series.
3. As undercentrifugation or overcentrifugation could lead to erroneous results, it is recommended that each laboratory calibrate its own equipment and the time required for achieving the desired results.

PERFORMANCE CHARACTERISTICS

127 whole blood samples with known cell phenotype were assessed with the SBio Anti-H lectin reagent. 100% specificity of the SBio Anti-H lectin reagent versus the expected results was demonstrated with the samples used for assessment. The general pattern of reactivity of SBio Anti-H lectin with the cells of various phenotype used was observed to be $O>A_2>A_2B>B>A_1>A_1B$ as expected.

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

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3. Technical Manual American Association of Blood Banks, 9th Ed., 1985. 127-153.

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EC REP

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