

Blood Grouping Reagents



In 1900, Landsteiner discovered that the serum of some individuals would agglutinate the red cells of others and that this phenomenon could be used to classify individuals into different blood group phenotypes. Four common phenotypes are recognised – O, A, B and AB. Subgroups of the A and B antigens have since been identified. The ABO phenotype of an individual is usually determined by the agglutination reactions of the individual's red cells with Anti-A, Anti-B and Anti-A,B antisera (forward grouping). In testing blood samples from adults, confirmation of the ABO blood group can be provided by the reactions of the individual's serum with standard A and B red cell suspensions (reverse grouping).

- Manufactured in the UK
- Rapid Delivery at Low Prices

◆ Reagents and Materials

Blood Grouping Reagent	Reagent Colour	Dye
Anti-A	Blue	Patent Blue
Anti-B	Yellow	Tartrazine
Anti-A,B	Colourless	N/A
Anti-D	Colourless	N/A

◆ Materials required but not provided

Slide Technique:	Tube Technique:
Microscope slide	Test tube
Timer	Centrifuge (1000 rcf)
Isotonic saline	Isotonic saline
Compatible plasma/serum	Timer

◆ Product Information

Cat.no.	Product Description	Vial
BLOOD GROUPING REAGENTS		
BG -A10	Anti-A	10ml
BG -B10	Anti-B	10ml
BG -AB10	Anti-A,B	10ml
BG -D10	Anti-D (IgG & IgM)	10ml
BG -ABD10	Anti-A,B, D (IgG & IgM) Kit	3 x 10ml/kit
BG -ABOD10	Anti-A,B,AB,D (IgG & IgM) Kit	4 x 10ml/kit



Febrile Antigens Testing Kits

Febrile Antigens are stained bacterial antigen suspensions used to identify and measure antibodies in human sera, following infection. Bacterial infection will cause the body to produce antibodies in response to the invading pathogen. When the serum sample is mixed with a febrile antigen, the solution will agglutinate if antibodies are present, indicating infection. Febrile Antigens are also known as Widal reagents – named after George-Fernand Widal who applied the agglutination reaction (discovered by Gruber and Durham) to test for typhoid fever using human serum.

The Widal test became the first example of serum diagnostics, leading the way for blood science.

Widal agglutination tests are widely used in many developing countries, including India, as an alternative laboratory procedure for diagnosis of enteric fever. Baseline titre of antibodies is normally elevated in healthy individuals in endemic areas. This factor must be considered before interpretation of Widal titres. In India, a titre of <1:20 is considered as the baseline of antibody titres against *S.typhi* in normal healthy individuals.

Rapid Biotec offer a range of high density and standard Febrile antigens for the identification of *Salmonella*, *Proteus* and *Brucella* bacterial infections. High density febrile antigens are typically used in areas which have a low exposure to the disease, whilst standard febrile antigens are more suited to endemic areas with a high incidence/risk of the disease. All our tests are easy-to-use, affordably priced and offer fast results to enable efficient screening for disease. They are available to use as both slide or tube methods. The slide method provides immediate agglutination, which is useful for obtaining an estimate titre, whilst the tube method can be used to determine the titre and is generally considered a more accurate (albeit less rapid) method.



Cat No.	Product Description	Vial
BRUCELLA FEBRILE ANTIGENS		
F-BAA5	Brucella abortus Febrile Antigen	5 ml
F-BMA5	Brucella melitensis Febrile Antigen	5 ml
PROTEUS FEBRILE ANTIGENS		
F-POXK5	Proteus OXK Antigen	5 ml
F-POX25	Proteus OX2 Antigen	5 ml
F-POX195	Proteus OX19 Antigen	5 ml
SALMONELLA FEBRILE ANTIGENS		
F-SOA5	Salmonella O Antigen Group A	5 ml
F-SOB5	Salmonella O Antigen Group B	5 ml
F-SOC5	Salmonella O Antigen Group C	5 ml
F-SOD5	Salmonella O Antigen Group D (Typhi O)	5 ml
F-SHA5	Salmonella H Antigen a	5 ml
F-SHB5	Salmonella H Antigen b	5 ml
F-SHC5	Salmonella H Antigen c	5 ml
F-SHD5	Salmonella H Antigen d (Typhi H)	5 ml
ADDITIONAL PRODUCTS		
F-FPC1	Febrile positive control sera	1 ml
F-FNC1	Febrile negative control sera	1 ml
F-KIT8X5	Widal Kit Salmonella Ha,Hb,Hc,Hd,OA,OB,OC,OD.	8 x 5 ml/kit
F-KIT8X5C	Widal Kit Salmonella Ha,Hb,Hc,Hd,OA,OB,OC,OD.+tve/-tve Control	8 x 5 mL + 2 x 1 ml/kit



Latex Agglutination Testing Kits

Rapid Biotech offer a range of rapid, quality latex agglutination test kits which can be used as part of the diagnosis of many common conditions such as staphylococcus, toxoplasmosis, pregnancy and many more. Rapid Biotech latex agglutination kits are available in 50 tests per kit, 100 tests per kit or in bulk.



Rapid Labs
Limited

◆ Product Information

Cat No.	Product Description	Pack Size
RL-ASO100	ASO Latex Test Kit	4.6 ml LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-ASO50	ASO Latex Test Kit	2.3 ml LR + 0.25 mL PC + 0.25 mL NC (50 T)/kit
RL-ASO50NA	ASO 50T Latex & Controls (no accessories)	2.3 ml LR + 0.25 mL PC + 0.25 mL NC (50 T)/kit
RL-ASO100NA	ASO 100T Latex & Controls (no accessories)	4.6 ml LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-CRP100	CRP Latex Test Kit	4.6 ml CRP LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-CRP50	CRP Latex Test Kit	2.3 ml CRP LR + 0.25 mL PC + 0.25 mL NC (50 T)/kit
RL-CRP50NA	CRP 50T Latex & Controls (no accessories)	2.3 ml CRP LR + 0.25 mL PC + 0.25 mL NC (50 T)/kit
RL-CRP100NA	CRP 100T Latex & Controls (no accessories)	4.6 ml CRP LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-RA100	RA (RF) Latex Test Kit	4.6 ml RA (RF) LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-RA50	RA (RF) Latex Test Kit	2.3 ml RA (RF) LR + 0.25 mL PC + 0.25 mL NC (50 T)/kit
RL-RA100NA	(RF) 100T Latex & Controls (no accessories)	4.6 ml RA (RF) LR + 0.5 mL PC + 0.5 mL NC (100 T)/kit
RL-LE100	Systemic Lupus Erythematosus Latex Test Kit	2x2.3 ml LE LR + 0.4 mL PC + 0.4 mL NC (100 T)/kit
RL-MONO50	Mononucleosis Latex Test Kit	2.5 ml Mono LR + 0.4 mL PC + 0.4 mL NC (50 T)/kit
RL-RB100	Rose Bengal Agglutination Test Kit	5 ml RB LR + 1 mL PC + 1 mL NC (100 T)/kit
RL-WR100	Waler Rose Haemagglutination Test Kit	5 ml WR LR + 1 mL PC + 1 mL NC (100 T)/kit

(LR: Latex Reagent, PC: Positive Control, NC: Negative Control)



Syphilis Testing Kits

Syphilis is caused by the spirochaete *Treponema pallidum*, and is usually acquired by sexual contact, although the disease may be transmitted by transfusion of infected blood. Intrauterine infection also occurs. The infection is a chronic condition that typically progresses through distinct primary, secondary, tertiary, and quaternary stages of infection. Untreated infection may eventually result in cardiovascular problems and neurosyphilis. The organism cannot be routinely cultured in artificial media, and diagnosis of the infection usually depends on the demonstration of antibodies in the blood, which appear soon after initial infection.

The TPHA (*Treponema pallidum* Haemagglutination Assay) detects antibodies to *Treponema pallidum* in human serum and plasma. The test uses preserved avian erythrocytes coated with extracted antigens of *T. pallidum* (Nichols strain). Specific antibodies present in a sample of plasma or serum bind to these antigens when the sample is incubated with the particles. This causes the particles to agglutinate, then settle to form a characteristic pattern in the test well. The assay can be run and interpreted manually or with an autoanalyzer using an agglutination interpretation program.

The RPR Kit uses a modified form of the VDRL antigen, containing carbon particles to improve the visual reading of the result. It is a non-treponemal flocculation test for the qualitative and semi-quantitative determination of reagin antibodies in serum or plasma. When binding occurs between cholesterol/ cardiolipin/lecithin in the reagent and the reagin antibodies in the sample, the results can be seen macroscopically in the form of black clumps. No visual flocculation indicates a negative result. The test can be performed on heated, unheated serum or plasma and is therefore very versatile. The RPR Test Kit can be used in the manual slide test and on single and multi-channel auto analyser instruments that are used in blood banks for mass Syphilis screening of routine blood bank donations. It has been calibrated to WHO Reference Serum for Serodiagnostic tests for Treponemal Infections- Ref 3-1980.

The VDRL Carbon Antigen kit is a non-Treponemal test for the qualitative and semi-quantitative detection of syphilis using serum (heated or unheated) or plasma. The VDRL test detects antibodies that are not specific for *T. pallidum*, although their presence in patient's serum or plasma is strongly associated with infection. This test measures antibody (IgG and IgM) produced in response to lipoidal material released from damaged host cells as well as to lipoprotein-like material released from the spirochaetes. These antibodies tend to disappear after successful treatment of the infection.



Cat No.	Product Description	Pack Size
RPR & VDRL		
D-RPR100	RPR	2 mL RPR Carbon Antigen + 1 mL PC + 1 mL NC (100 T)/kit
D-RPR250	RPR	5 mL RPR Carbon Antigen + 1 mL PC + 1 mL NC (100 T)/kit
D-RPR500	RPR	10 mL RPR Carbon Antigen + 1 mL PC + 1 mL NC (100 T)/kit
D-RPRCARDS10	RPR Test Cards 10 well	RPR Test Cards 10 well
RL-VDRL250	VDRL Carbon Antigen 5mL+ controls (no accessories)	5 mL RPR Carbon Antigen + 1 mL PC + 1 mL NC (100 T)/kit
RL-RPR5ML	VDRL (RPR) Carbon Antigen	5 mL/vial
RL-RPRP1ML	RPR Carbon Antigen Positive Control	1 mL/vial
RL-RPRN1ML	RPR Carbon Antigen Negative Control	1 mL/vial
TPHA PARTICLE AGGLUTINATION		
RL-TPHA100	TPHA	7.6 mL TPHA Control Cells + 7.6 ml TPHA Test Cells + 20 mL Diluent + 1 mL PC + 1 mL NC (100 T)/kit
RL-TPHA200	TPHA	15.2 mL TPHA Control Cells + 15.2 ml TPHA Test Cells + 40 mL Diluent + 1 mL PC + 1 mL NC (200 T)/kit
RL-TPHA500	TPHA	40ml TPHA Control Cells+40ml TPHA Test Cells+100ml Diluent +1 ml PC + 1ml NC(500T)/kit
RL-TPHA-PC-1	TPHA Positive Control	1 mL/vial
RL-TPHA-NC-1	TPHA Negative Control	1 mL/vial

(PC: Positive Control, NC: Negative Control)