Blood Grouping and Diagnostics Product Range



CE and Non-CE Marked Blood Grouping Reagents

Febrile (WIDAL) Antigens

TPHA, RPR & Latex Kits

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Blood Grouping Reagents

CE-Marked Blood Grouping Reagents

Our CE-Marked range of blood grouping reagents have been developed to meet the demands for customers in territories that require a Free Sale Certificate and/or a CE Certificate as specified by their own regional registration system. CE-Marked Blood Grouping Reagents for ABOD fall into one of the most highly regulated classes of diagnostic reagents. CE marking is the medical device manufacturer's claim that a product meets the essential requirements of all relevant European Medical Device Directives. The Directives outline the safety and performance requirements for medical devices in the European Union (EU). The CE mark is a legal requirement to place a device on the market in the EU.

Product Name	Type	Pack Size
Anti-A	Monoclonal	10ml
Anti-A	Monoclonal	10 x 10ml
Anti-B	Monoclonal	10ml
Anti-B	Monoclonal	10 x 10ml
Anti-A,B	Monoclonal	10ml
Anti-A,B	Monoclonal	10 x 10ml
Anti-D (D + D^{VI} Antigens)	Monoclonal	10ml
Anti-D (D + D^{VI} Antigens)	Monoclonal	10 x 10ml
Anti A,B,D (D+ D^{VI} Antigens) Kit	Monoclonal	3 x 10ml
Anti A,B,AB,D (D+ D^{VI} Antigens) Kit	Monoclonal	4 x 10ml
Anti-Human Globulin (Coombs)	Polyspecific	10ml
Anti-Human Globulin (Coombs)	Polyspecific	10 x 10ml

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Non-CE Marked Blood Grouping Reagents

Our non-CE marked range of blood grouping reagents offer the same quality at a reduced price, ideal for customers in countries where CE-registration is not a legal requirement. Where possible, these reagents have been developed with a higher titre than our CE-marked versions, allowing them to withstand the rigours of long-haul shipping in higher temperatures (providing they are refrigerated at 2-8°C immediately upon arrival).

Product Name	Type	Pack Size
Anti-A	Monoclonal	5ml
Anti-A	Monoclonal	10ml
Anti-B	Monoclonal	5ml
Anti-B	Monoclonal	10ml
Anti-A,B	Monoclonal	5ml
Anti-A,B	Monoclonal	10ml
Anti-D (IgG & IgM)	Monoclonal	5ml
Anti-D (IgG & IgM)	Monoclonal	10ml
Anti D IgM	Monoclonal	5ml
Anti D IgM	Monoclonal	10ml
Anti D IgG	Monoclonal	5ml
Anti D IgG	Monoclonal	10ml
Anti A, B, D (IgG & IgM) kit	Monoclonal	3 x 10ml
Anti A, B, AB, D (IgG & IgM) kit	Monoclonal	4 x 10ml
Anti-Human Globulin (Coombs) Green	Polyspecific	5ml
Anti-Human Globulin (Coombs) Green	Polyspecific	10ml
Anti-Human Globulin (Coombs) Green	Monospecific	10ml
Anti-Human Globulin (Coombs) Clear	Polyspecific	10ml
Anti-Human Globulin IgG (Coombs) Clear	Monospecific	10ml
Bovine Albumin 22%		5ml
Bovine Albumin 22%		10ml
Bovine Albumin 30%		5ml
Bovine Albumin 30%		10ml
Anti-A1	Lectin	5ml
Anti-A1	Lectin	10ml
Anti-H	Lectin	2ml
Anti-H	Lectin	5ml
Anti-H	Lectin	10ml
Anti-N	Lectin	2ml

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Non-CE Marked Blood Grouping Reagents

Product Name	Type	Pack Size
Rhesus Typing Reagents		
Anti-C	Monoclonal	5ml
Anti-C	Monoclonal	10ml
Anti-c	Monoclonal	5ml
Anti-c	Monoclonal	10ml
AntI-CDE	Monoclonal	2ml
AntI-CDE	Monoclonal	5ml
AntI-CDE	Monoclonal	10ml
Anti-E	Monoclonal	10ml
Anti-E	Monoclonal	5ml
Anti-e	Monoclonal	10ml
Anti-e	Monoclonal	5ml
Anti-K (Kell)	Monoclonal	10ml
Anti-K (Kell)	Monoclonal	3 x 10ml
Anti-Cw	Monoclonal	4 x 10ml
Rh Control	Polyspecific	5ml
Rare Typing Reagents		
Anti-P1	Monoclonal	2ml
Anti-S	Monoclonal	2ml
Anti-s	Monoclonal	2ml
Anti-Fya	Monoclonal	2ml
Anti-Fyb	Polyclonal	2ml
Anti-k (cellano)	Monoclonal	2ml
Anti-Kpa	Polyclonal	2ml
Anti-Kpb	Polyclonal	2ml
Anti-Jka	Polyclonal	2ml
Anti-Jka	Monoclonal	2ml
Anti-Jkb	Monoclonal	2ml
Anti-Lea	Monoclonal	2ml
Anti-Leb	Monoclonal	2ml
Anti-M	Polyclonal	2ml
Papenzyme	Papain	10ml
Bromelite	Bromelin	10ml

Febrile Antigens

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[1].

Blue Everest 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.

Proteus Febrile Antigen Range

Proteus is a genus of Gram-negative saprophytic bacteria. They are found in decomposing matter, manure soil, faeces and sewage. The OX-2, OX-19 and OX-K strains can cross-react with several species of the Rickettsiae bacteria:

Rickettsiae Strain	Associated Disease
Rickettsia typhi	Murine Typhus
Rickettsia prowazekii	Epidemic Typhus
Orientia tsustsugamushi	Scrub Typhus
Rickettsia rickettsia	Rocky Mountain Spotted Fever
Rickettsia africae	African Tick-Bite Fever
Rickettsia japonica	Japanese Spotted Fever

5ml sizes for the OX-2, OX19 and OX-k strains of Proteus:

Product Name	Pack Size
Proteus OX-19 Febrile Antigen	5ml
Proteus OX-K Febrile Antigen	5ml
Proteus OX-2 Febrile Antigen	5ml

Febrile Antigens

Brucella Febrile Antigen Range:

Brucella are a group of Gram-negative, rod-shaped bacteria. Infection (Brucellosis) can occur in humans usually by the consumption of unpasteurised milk and/or close contact with infected farm animals. Rapid Labs offer febrile antigens for two of the most common Brucella species that can affect humans: Brucella abortus and Brucella melitensis. Brucella melitensis is the most virulent and invasive species, usually infecting goats and sheep. Brucella abortus is less virulent and primarily affects cattle.

Cat. No.	Product Name	Pack Size
F-BAAF	Brucella abortus Febrile Antigen	5ml
F-BMA5	Brucella melitensis Febrile Antigen	5ml

Salmonella Febrile Antigens

Salmonella is a genus of rod-shaped Gram-negative bacteria. There are over 2500 serotypes. Rapid Labs offer a range of febrile antigens for the most common serovars tested for in 5ml sizes. Serovars displaying somatic 'O' antigens are stained blue, whilst serovars displaying flagella 'H' antigens are stained red[4]. The IgM somatic O antibody appears first and represents the initial serologic response in acute typhoid fever, while the IgG flagella H antibody usually develops more slowly but persists for longer:

Antigen Group	Serovars	Febrile Antigen	Cat. No.
A	S. Paratyphi A, S. Paratyphi A var. Durazzo	Salmonella O Antigen Group A	F-SOA5
		Salmonella H Antigen Group A	F-SHA5
B	S. Paratyphi B, S. Paratyphi B var. Odense, S. Java, S. Limete	Salmonella O Antigen Group B	F-SOB5
		Salmonella H Antigen Group B	F-SHB5
C	S. Paratyphi C, S. Choleraesuis, S. Choleraesuis var. Kunzendorf, S. Decatu, S. Typhisuis	Salmonella O Antigen Group C	F-SOC5
		Salmonella H Antigen Group C	F-SHC5
D	S. Typhi, S. Ndolo	Salmonella O Antigen Group D	F-SOD5
		Salmonella H Antigen Group D	F-SHD5

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* Haemagluttination 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.

Analyte	Pack Size
TPHA	100T Kit
	200T Kit
	500T Kit
TPHA for PK7200 & PK7300 Analysers	2000T Kit
TPHA Positive Control	1ml
TPHA Negative Control	1ml
RPR Kit	100T/kit
	250T/kit
	500T/kit
RPR Test Cards	10 x 10 cards
RPR Carbon Antigen Positive Control	1ml
RPR Carbon Antigen Negative Control	1ml
VDRL Carbon Antigen & controls (no accessories)	5ml + 2x 1ml
VDRL (RPR) Carbon Antigen	5ml

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Latex Agglutination Testing Kits

Blue Everest 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 Labs latex agglutination kits are available in 50 tests per kit, 100 tests per kit or in bulk.

Product Name	Pack Size
ASO Latex Test Kit	100T/kit
ASO Latex Test Kit	50T/kit
ASO 50T Latex & controls (no accessories)	50T
ASO 100T Latex & controls (no accessories)	100T
CRP Latex Test Kit	100T/kit
CRP Latex Test Kit	50T/kit
CRP 50T Latex & Controls (no accessories)	50T
CRP 100T Latex & Controls (no accessories)	100T
RA (RF) Latex Test Kit	100T/kit
RA (RF) Latex Test Kit	50T/kit
RA (RF) 50T Latex & Controls (no accessories)	50T
RA (RF) 100T Latex & Controls (no accessories)	100T
Systemic Lupus Erythematosus Latex Test Kit	100T/kit
Mononucleosis Latex Test Kit	50T/kit
Staphylococcus Latex Test Kit	50T/kit
Staphylococcus Latex Test Kit	100t/kit
Rose Bengal Agglutination Test Kit	100T/kit
Toxoplasmosis Latex Test Kit	100T/kit
Waaler Rose Haemagglutination Test Kit	100T/kit