

Serology & Immunology



PRODUCT LIST 2022



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Reagents for Cellbind gel cards

Cellbind gel cards

product no.	product name	package	description
K7000	Cellbind Screen	48 cards	Universal Cellbind gel card for all blood group serology tests, including typing for blood group antigens, reverse typing, antibody screening, antibody identification, crossmatch and DAT. Each column contains anti-IgM, anti-IgG and anti-C3d.
K7011	Cellbind Direct	48 cards	Cellbind gel card for the identification of the reaction subtype in samples with a positive DAT. Two columns with anti-IgG, two columns with anti-C3d and two columns for negative controls.
K7012	Cellbind Direct Type	48 cards	Cellbind gel card for typing of blood group antigens on red cells including red cells with a positive DAT. Each column contains anti-IgM.

Reagents for Cellbind gel cards

ABO

product no.	product name	package	clone	method
K1188	Pelikloon anti-A (IgM) monoclonal	3x10 mL	BIRMA1	No Incubation
K1189	Pelikloon anti-B (IgM) monoclonal	3x10 mL	LB2	No Incubation
K1190	Pelikloon anti A,B (IgM) monoclonal	3x10 mL	ES4 ES15	No Incubation

Rhesus

product no.	product name	package	clone	method
K1255	Pelikloon anti-D (IgM) monoclonal	10 mL	RUM-1	No Incubation
K1151*	Pelikloon anti-D enhanced (IgM) monoclonal	10 mL	LDM1 ESD1M	No Incubation
K1157**	Pelikloon anti-D mix (IgG/IgM) monoclonal	10 mL	TH28 MS26	Combination of incubation and no incubation
K1195	Pelikloon anti-C (IgM) monoclonal	5 mL	MS24	No Incubation
K1196	Pelikloon anti-c (IgM) monoclonal	5 mL	MS33	No Incubation
K1191	Pelikloon anti-E (IgM) monoclonal	5 mL	MS260	No Incubation
K1197	Pelikloon anti-e (IgM) monoclonal	5 mL	MS62 MS69	No Incubation

Rhesus second line

product no.	product name	package	clone	method
K1202	Pelikloon anti-C (IgM) monoclonal	5 mL	MS273	No Incubation
K1203	Pelikloon anti-c (IgM) monoclonal	5 mL	MS35	No Incubation
K1204	Pelikloon anti-E (IgM) monoclonal	5 mL	MS80 MS258	No Incubation
K1205	Pelikloon anti-e (IgM) monoclonal	5 mL	MS21 MS63	No Incubation

* K1151 (one phase reagent): Direct agglutination of (weak) D positive and D variant red blood cells

** K1157 (two phase reagent): Direct agglutination of (weak) D positive red blood cells (IgM) and indirect agglutination of weak D and D variant red blood cells (IgG)

Rare antigens

product no.	product name	package	clone	method
K1199	Pelikloon anti-K (IgM) monoclonal	5 mL	MS56	No Incubation
K1236	Anti-Fy ^a (IgG) monoclonal AGT method	3 mL	P3TIM	Incubation

Controls

product no.	product name	package	description
K1146	AB serum (pooled)	10 mL	Control on false-positive results with polyclonal blood grouping reagents
K1156	Pelikloon control monoclonal	10 mL	Control on false-positive results with monoclonal blood grouping reagents



Reagent red cells for Cellbind gel cards

ABO

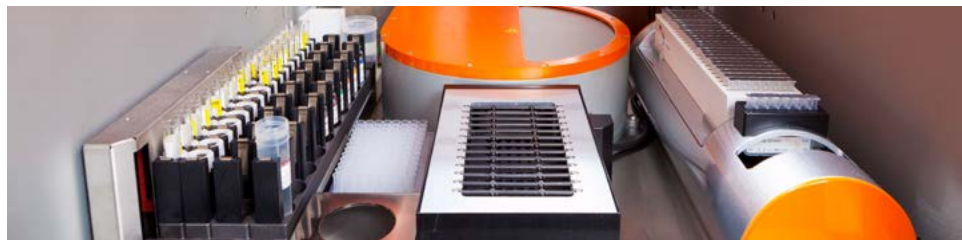
product no.	product name	package	description
K7240	Cellbind A ₁ reagent red cells	10 mL	Confirmation of ABO groups
K7241	Cellbind A ₂ reagent red cells	10 mL	Control cells
K7242	Cellbind B reagent red cells	10 mL	Confirmation of ABO groups
K7243	Cellbind O positive reagent red cells	10 mL	Control cells

Screening and identification

product no.	product name	package	description
K7200	Cellbind P2	2x10 mL	For the detection of antibodies
K7210	Cellbind P3	3x10 mL	For the detection of antibodies
K7230	Cellbind ID16	16x3 mL	For the identification of antibodies

Cellbind dilution media

product no.	product name	package	description
K7110	Cellbind LISS	100 mL	For diluting cells intended for typing, DAT, crossmatch and autocontrol
K7130	Cellbind LISS	3x25 mL	For diluting cells intended for typing, DAT, crossmatch and autocontrol
K7180	Cellbind DILUENT	100 mL	For diluting cells intended for reverse typing, screening and identification



Cellbind equipment

Fully automated

product no.	product name	description
K7320	Magister C24	Fully automated blood group serology system for Cellbind gel cards



Semi-automated

product no.	product name	description
K7300	Cellbind dispenser	For the addition of Cellbind LISS
K7312	Cellbind Centrifuge (12 cards)	For (up to) 12 Cellbind gel cards
K7314	Cellbind Incubator	For (up to) 24 Cellbind gel cards
K7315	Cellbind workstation - Donors	Holder for donor tubes
K7316	Cellbind workstation - Samples	Holder for sample tubes
K7317	Cellbind workstation - Gelcards	Holder for Cellbind gel cards

Disposables

product no.	product name	description
K7390	Stirrer balls	3x80 balls
K7391	Deepwell tubes	1.4 mL (bag = 960 tubes)
K7392	Reusable tube holder	For 96 tubes
K7393	Decon 90	1 L
K7394	Evaporation caps	Bag of 20 pcs

Reagents for manual techniques

Reagents for blood grouping

ABO

product no.	product name	package	clone	method
K1188	Pelikloon anti-A (IgM) monoclonal	3x10 mL	BIRMA1	Direct
K1189	Pelikloon anti-B (IgM) monoclonal	3x10 mL	LB2	Direct
K1190	Pelikloon anti A,B (IgM) monoclonal	3x10 mL	ES4 ES15	Direct

Rhesus

product no.	product name	package	clone	method
K1255	Pelikloon anti-D (IgM) monoclonal	10 mL	RUM-1	Direct
K1151 *	Pelikloon anti-D enhanced (IgM) monoclonal	10 mL	LDM1 ESD1M	Direct
K1157 **	Pelikloon anti-D mix (IgG/IgM) monoclonal	10 mL	TH28 MS26	Combination of indirect and direct
K1195	Pelikloon anti-C (IgM) monoclonal	5 mL	MS24	Direct
K1196	Pelikloon anti-c (IgM) monoclonal	5 mL	MS33	Direct
K1191	Pelikloon anti-E (IgM) monoclonal	5 mL	MS260	Direct
K1197	Pelikloon anti-e (IgM) monoclonal	5 mL	MS62 MS69	Direct

* K1151 (one phase reagent): Direct agglutination of (weak) D positive and D variant red blood cells

** K1157 (two phase reagent): Direct agglutination of (weak) D positive red blood cells (IgM) and indirect agglutination of weak D and D variant red blood cells (IgG)

Rhesus second line

product no.	product name	package	clone	method
K1202	Pelikloon anti-C (IgM) monoclonal	5 mL	MS273	Direct
K1203	Pelikloon anti-c (IgM) monoclonal	5 mL	MS35	Direct
K1204	Pelikloon anti-E (IgM) monoclonal	5 mL	MS80 MS258	Direct
K1205	Pelikloon anti-e (IgM) monoclonal	5 mL	MS21 MS63	Direct
K1199	Pelikloon anti-K (IgM) monoclonal	5 mL	MS56	Direct

Rare

product no.	product name	package	clone	method
K1201	Pelikloon anti-C ^w (IgM) monoclonal	2 mL	MS110	Direct
K1300	Pelikloon anti-Jk ^a (IgM) monoclonal	2 mL	MS15	Direct
K1301	Pelikloon anti-Jk ^b (IgM) monoclonal	2 mL	MS8	Direct
K1302	Pelikloon anti-M (IgG) monoclonal	2 mL	LM110/140	Direct
K1313	Pelikloon anti-N (IgG) monoclonal	2 mL	BO3	Direct
K1304	Pelikloon anti-S (IgM) monoclonal	2 mL	MS94	Direct
K1305	Pelikloon anti-P ₁ (IgM) monoclonal	2 mL	P3NIL100	Direct
K1306	Pelikloon anti-Le ^a (IgM) monoclonal	2 mL	LEA2	Direct
K1317	Pelikloon anti-Le ^b (IgA) monoclonal	2 mL	P3F234MD4	Direct
K1310	Pelikloon anti-k (IgM) monoclonal	2 mL	Lk1	Direct
K1236	Anti-Fy ^a (IgG) monoclonal AGT method	3 mL	P3TIM	Indirect
K1337	Anti-Fy ^b AGT method	3 mL		Indirect
K1343	Anti-s AGT method	3 mL		Indirect
K1344	Anti-Wr ^a AGT method	3 mL		Indirect

Lectins

product no.	product name	package	description	method
K1328	Anti-A ₁ (lectin) saline method	5 mL	Dolichos biflorus	Direct
K1327	Anti-H (lectin) saline method	3 mL	Ulex europaeus	Direct

Controls

product no.	product name	package	description
K1146	AB serum (pooled)	10 mL	Control on false-positive results with polyclonal blood grouping reagents
K1152	Pelikloon enhanced control	10 mL	Control on false-positive results with enhanced blood grouping reagents
K1156	Pelikloon control monoclonal	10 mL	Control on false-positive results with monoclonal blood grouping reagents

Anti-human globulin (Coombs sera)

AHG contains anti-human IgG antibodies and/or anti-complement antibodies and can be used for the (in)direct antiglobulin test. All AHG (Coombs sera) are suitable for the tube technique.

product no.	product name	package	clone	method
K1131	Monospecific anti-human IgG	10 mL		IAT (PEG) DAT
K1377	Pelikloon anti-C3d monoclonal	5 mL	BRIC8	DAT
K1193	Pelikloon polyspecific anti-human serum	10 mL	BRIC8	IAT (LISS or BSA) DAT
K1194	Pelikloon polyspecific anti-human serum (green)	10 mL	BRIC8	IAT (LISS or BSA) DAT

Potentiating reagents

All potentiating reagents are suitable for use in the tube technique.

product no.	product name	package	description	method
K1106 *	BSA 22% (bovine serum albumin)	10 mL		BSA-IAT
K1159	PEG 4000 20%	20 mL	Polyethylene glycol	PEG-IAT
K1110 *	PeliLISS	10 mL	Low ionic strength solution	LISS-IAT

* Available until May 2022



Reagents red cells

Characteristics

- Identification panels always include a Kp^a, Lu^a and Wr^a positive cell, a k negative cell and an R₂R₂ cell
- The panels always contain C^w positive cells and the three cell screening panels are Bg^a, Bg^b and Bg^c negative
- All characteristics, such as unique rare antigens and mutations, are reported if known
- Produced every four weeks

ABO (3% cell suspension)

product no.	product name	package	description
K1140	A ₁ reagent red cells	10 mL	Confirmation of ABO groups
K1141	A ₂ reagent red cells	10 mL	Control cells
K1142	B reagent red cells	10 mL	Confirmation of ABO groups
K1143	O positive reagent red cells	10 mL	Control cells
K1144	O negative reagent red cells	10 mL	Control cells

Coombs (3% cell suspension)

Donors are blood group O/D positive. The red blood cells are sensitised with IgG anti-D antibodies.

product no.	product name	package
K1138	CCC coombs control cells strong	10 mL
K1145	CCC coombs control cells	10 mL

Screening

Donors are blood group O.

product no.	product name	package	description
K1388	Screening set 1+2	2x10 mL	For the detection of antibodies (3%)
K1148	Screening panel 123	3x10 mL	For the detection of antibodies (3%)
K1393	Wr ^a positive reagent red cells	3 mL	For the detection of antibodies (3%)
K5010	Column panel 123	3x10 mL	For the detection of antibodies (0.8%)

Identification

Donors are blood group O.

product no.	product name	package	description
K1385	Makropanel 16	16x3 mL	For the identification of antibodies (3%)
K1384	Makropanel 16P (papain)	16x3 mL	Papain treated cells, for the identification of antibodies (3%)



Quality control products

Quality controls

product no.	product name	package	description
K1379	PeliControl	2x8 mL	To be used as patient samples for internal quality control procedures for checking ABO/Rh-D, reverse blood typing and antibody screening. Contains two whole blood samples.
K1399	PeliControl CcEe-K	8 mL	To be used as patient sample for internal quality control procedures for checking Rhesus phenotype and K blood grouping. Contains one whole blood sample.

Educational tools

Proficiency panels

product no.	product name	package	description
K1387	PeliCase 2	1 set	Proficiency panel, for training skills on blood group serological procedures, advanced level

Immunohaematology books

The book Immunohaematology is published by Sanquin and discusses the theoretical backgrounds of blood group serology/immunohaematology and has become indispensable in today's transfusion laboratory.

product no.	product name	description
K3010	Erythrocytenserologie	Dutch version
K3010EN	Immunohaematology	English version



Specialised products

Elution

For easy and rapid acid elution of IgG antibodies from sensitised red blood cells.

product no.	product name	package	description
K1398	PeliStrip elution kit	15 tests	Contains elution solution and neutralisation solution with a pH colour indicator

Platelet crossmatching

Microtiter plate based platelet test for the detection of anti-HLA and anti-HPA platelet antibodies.

product no.	product name	package	description
K1360	MASPAT kit	96 tests	One pre-coated microtiter plate and all required reagents
K1139	MASPAT indicator red cells	10 mL	0.3% sensitised red blood cells for use in MASPAT kit



Clinical & research immunology

Bioanalysis of biologics

Therapeutic drug monitoring (TDM) is vitally important to optimize therapy for all patients treated with biologics. Monitoring drug levels and determination of anti-drug antibodies (ADA) is relevant as it can guide treatment decisions to optimize treatment efficacy and cost-effectiveness. It brings both under and overtreatment to light. Therefore, we developed highly specific assays to monitor biopharmaceutical drug levels and ADA response in serum and plasma.

MabTrack ELISA kits

product no.	product name	package	description
M2910	MabTrack level adalimumab	32 - 88 tests *	ELISA for quantitative measurement of adalimumab drug levels, CE IVD, ready for use
M2920	MabTrack level infliximab	32 - 88 tests *	ELISA for quantitative measurement of infliximab drug levels, CE IVD, ready for use
M2950	MabTrack ADA adalimumab	18 - 44 tests *	ELISA for semi-quantitative measurement of anti-adalimumab antibodies, CE IVD, ready for use
M2960	MabTrack ADA infliximab	18 - 44 tests *	ELISA for semi-quantitative measurement of anti-infliximab antibodies, CE IVD, ready for use

* Total capacity depends on single or duplicate measurements and the number of runs. Maximum of 4 runs for the level kits and maximum of 3 for the ADA kits, respectively.





Available tests via Sanquin Diagnostic Services

Biologic	Level		ADA	
	Service	MabTrack	Service	MabTrack
Abatacept	✓	-	-	-
Adalimumab	✓	✓	✓	✓
Certolizumab	✓	-	<i>Ruo</i>	-
Dupilumab	✓	-	-	-
Etanercept	✓	-	-	-
Golimumab	✓	-	✓	-
Infliximab	✓	✓	✓	✓
Natalizumab	✓	-	✓	-
Pembrolizumab	✓	-	✓	-
Rituximab	✓	-	✓	-
Tocilizumab	✓	-	✓	-
Ustekinumab	✓	-	✓	-
Vedolizumab	✓	-	✓	-
Nivolumab / Omalizumab	<i>Research use only</i>			
Belimumab / Ocrelizumab	<i>In development</i>			

Monocyte activation test kit for pyrogen testing

Pharmaceutical products intended for parenteral use must be free of pyrogens (fever-inducing substances), which can originate from bacteria, viruses and fungi. Traditionally, the presence of pyrogens in these products has been investigated using the Rabbit Pyrogen Test (RPT). The Monocyte Activation Test (MAT) is an in vitro-based alternative assay which determines pyrogenic activity in pharmaceutical products by measuring cytokine production of human monocytes. The MAT detects both endotoxin and non-endotoxin pyrogens that are relevant to humans. In June 2021 the European Pharmacopoeia (Ph. Eur.) commission made the decision to engage on a path that should ultimately lead to the complete replacement of the rabbit pyrogen test (RPT) in the Ph. Eur., within approximately 5 years. The Ph. Eur. considers the MAT, after a product-specific validation, to be suitable as a replacement for the rabbit pyrogen test (Ph. Eur. chapter 2.6.30).

The principle of the test is that a human source of monocytes (e.g. peripheral blood mononuclear cells; PBMCs) are incubated with the test sample, controls, and depending on the method, an endotoxin standard curve. Following incubation at 37°C, the cell culture supernatant is collected and analyzed for the presence of cytokines, e.g. interleukin-6 (IL-6), by enzyme-linked immunosorbent assay (ELISA).

Sanquin offers a complete kit solution to perform each step of the MAT, the MAT Cell Set (product number M2016) to perform the cell incubation with the test sample and the PeliKine compact human IL-6 kit (product number M1916) with the PeliKine Tool set 1 (product number M1980) to perform the ELISA on the cell culture supernatant.

In 2021 Sanquin introduced a new MAT kit of which the cell culture medium supplement is based on human AB serum: the MAT Cell Set HS (product number M2017). The new kit fully complies with the Ph. Eur. (2.6.30) requirements, but also agrees with the 3Rs principle to reduce the experimental use of animals. The reactivity towards endotoxin in comparison to the current FBS-based MAT kit (product number M2016) is only slightly lower, the reactivity to Non-Endotoxin Pyrogens is in general comparable or higher. A comparison study of both MAT kits is published in the peer-reviewed journal: <https://www.altex.org/index.php/altex/article/view/2025/version/2085>

The new human AB serum-based MAT is, therefore, considered to be the first choice for most pharmaceutical products, while in specific cases the FBS-based MAT could prove more suitable (e.g. for testing certain vaccines against diseases for which the donors of the human AB serum may already have antibodies, which could interfere in the MAT assay).

Sanquin also offers the MAT as test service. In our GMP and ISO 15189 certified laboratory, we perform MAT feasibility testing, method development, product-specific validations and in-process/batch release testing. More information can be found on our website: <https://www.sanquin.org/mat>

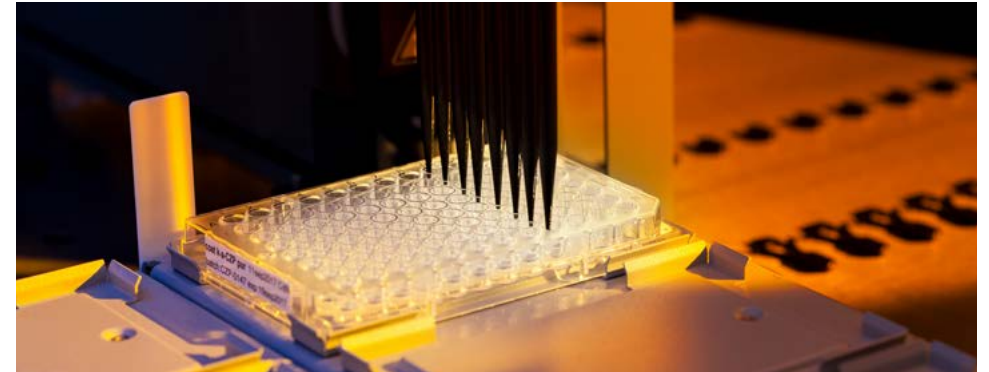
MAT Services

If you prefer to outsource pyrogen testing, our GMP and ISO-15189 certified laboratory provides all services needed to set up the MAT for your product(s).

More information on MAT Kits & Services is available at www.sanquin.org/mat or by sending an e-mail to mat@sanquin.nl.

MAT Kits

product no.	product name	package	description
M2016	MAT Cell Set	Kit, sufficient for three 96-well plates: • 3 vials of cryopreserved pooled MAT Cells • 3 vials of MAT Culture Medium Supplement (based on Fetal Bovine Serum)	<ul style="list-style-type: none"> • MAT Cells qualified according to Ph. Eur. chapter 2.6.30 • Limit of Detection (LOD): ≤ 0.02 EU/mL • Detection of Non-Endotoxin Pyrogens • Storage at -80°C (no liquid nitrogen required) • Test up to 3 samples per plate
M2017	MAT Cell Set HS	Kit, sufficient for three 96-well plates: • 3 vials of cryopreserved pooled MAT Cells • 3 vials of MAT Human Serum Supplement	<ul style="list-style-type: none"> • Validated with M1916 and M1980 as cytokine readout (not included) • Fully compliant with Ph. Eur. chapter 2.6.30 requirements • Limit of Detection (LOD): ≤ 0.08 EU/mL • Improved detection of Non-Endotoxin Pyrogens
M1916	PeliKine compact human IL-6 kit	Kit, sufficient for three 96-well plates	<ul style="list-style-type: none"> • Validated with M1916 and M1980 as cytokine readout (not included) • IL-6 ELISA • Standard range: 0.6 - 450 pg/mL
M1980	PeliKine Tool set 1	Kit, sufficient for three 96-well plates	<ul style="list-style-type: none"> • Additional reagents for application in PeliKine-compact ELISA kits



ELISA products

Cytokine ELISA kits

We offer a range of cytokine ELISA kits available as PeliKine compact kits (288 tests) and PeliPair reagent sets (1824 tests). The optimised and easy-to-follow IFU warrants reliable assay results.

PeliKine compact kits, 288 tests (3 plates)

product no.	cytokine	sensitivity	standard range
M1916	IL-6	0.2 pg/mL	0.6 - 450 pg/mL

PeliPair reagent sets, 1824 tests (19 plates)

The set contains five times the coating antibody and biotinylated detection antibody, as well as the cytokine standard from the compact kits, and is sufficient for 1824 tests (including calibration curves).

product no.	cytokine
M9316	IL-6



ELISA supplementary reagents

product no.	package	description
M1980	kit	PeliKine tool set 1, 288 tests (3 plates) components: • coating buffer • PBS • wash buffer; stop buffer • TMB substrate solution
M2051	0.1 mL	streptavidin poly HRP, 1 mg/mL
M2032	1 mL	streptavidin poly HRP, 1 mg/mL
M1940	55 mL	HPE buffer to dilute samples and poly HRP, eliminating matrix effects

PeliClass IgG subclass reagents

Sanquin manufactures kits and reagents for the determination of IgG subclass concentrations on the Beckman Coulter IMMAGE/IMMAGE 800 Immunochemistry systems.

product no.	product name
M1895	PeliClass human IgG subclass Plus kit
Components:	
M1891	PeliClass sheep anti human IgG1 Plus
M1892	PeliClass sheep anti human IgG2 Plus
M1893	PeliClass latex sheep anti human IgG3 Plus
M1894	PeliClass latex sheep anti human IgG4 Plus
M1896	PeliClass human IgG subclass Plus calibrator set
M1897	PeliClass human IgG subclass Plus control 1
M1898	PeliClass human IgG subclass Plus control 2



Sanquin has done its utmost to ensure that the contents of this Product List is accurate and up-to-date. However, Sanquin is not liable for possible errors in this Product List. Information in this Product List is subject to change without notice. Sanquin reserves the right to de-list a product during the year.

Sanquin is responsible for safe and efficient blood supply in the Netherlands on a not-for-profit basis. Sanquin also develops and produces pharmaceutical products, conducts high-quality scientific research, and develops and performs a multitude of diagnostic services. Continuous research and innovation lead to new and improved products and services. Quality and development therefore go hand in hand.

Sanquin

Blood Bank

Diagnostic Services B.V.

Research & Labservices

Reagents B.V.

Sanquinnovate B.V.

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