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SERION CFT

CE CE 0197*

* for 1122, 2122, 3122, 4122
1130, 2130, 3130, 4130
1331, 2331, 3331, 4331

Instructions - English
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Updates

Please pay attention to the differences in comparison with the previous version

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Working Instructions for Reagents of the Complement Fixation Test (CFT)

CE 0197*

CE

* for 1122, 2122, 3122, 4122, 1130, 2130, 3130, 4130, 1331, 2331, 3331, 4331

CONTENTS

Working Instruction for the Reagents of the Complement Fixation Test (CFT)

Reagents for *in vitro* detection of antibodies specific to a range of pathogens. The reagents are designed to be used by qualified personnel who are familiar with good laboratory practice.

1. INTRODUCTION

Complement is a system of serum proteins, with linked functions, that are responsible for several important infection defense functions. Complement binds to antigen-antibody complexes [Ab-Ag] resulting in “fixation” and activation of the complement cascade. In the activated, or “fixed”, form Complement induces Complement-mediated lysis of the target structure. However, it is labile and loses its activity within a short period of time. This mechanism is used in the CFT as an indicator for the presence of specific antibodies.
Complement is activated in the presence of IgG_1-, IgG_2-, IgG_3- and IgM-antigen-complexes, whereby the last is particularly effective. High CFT titers can indicate acute infections (primary infection or reactivation).

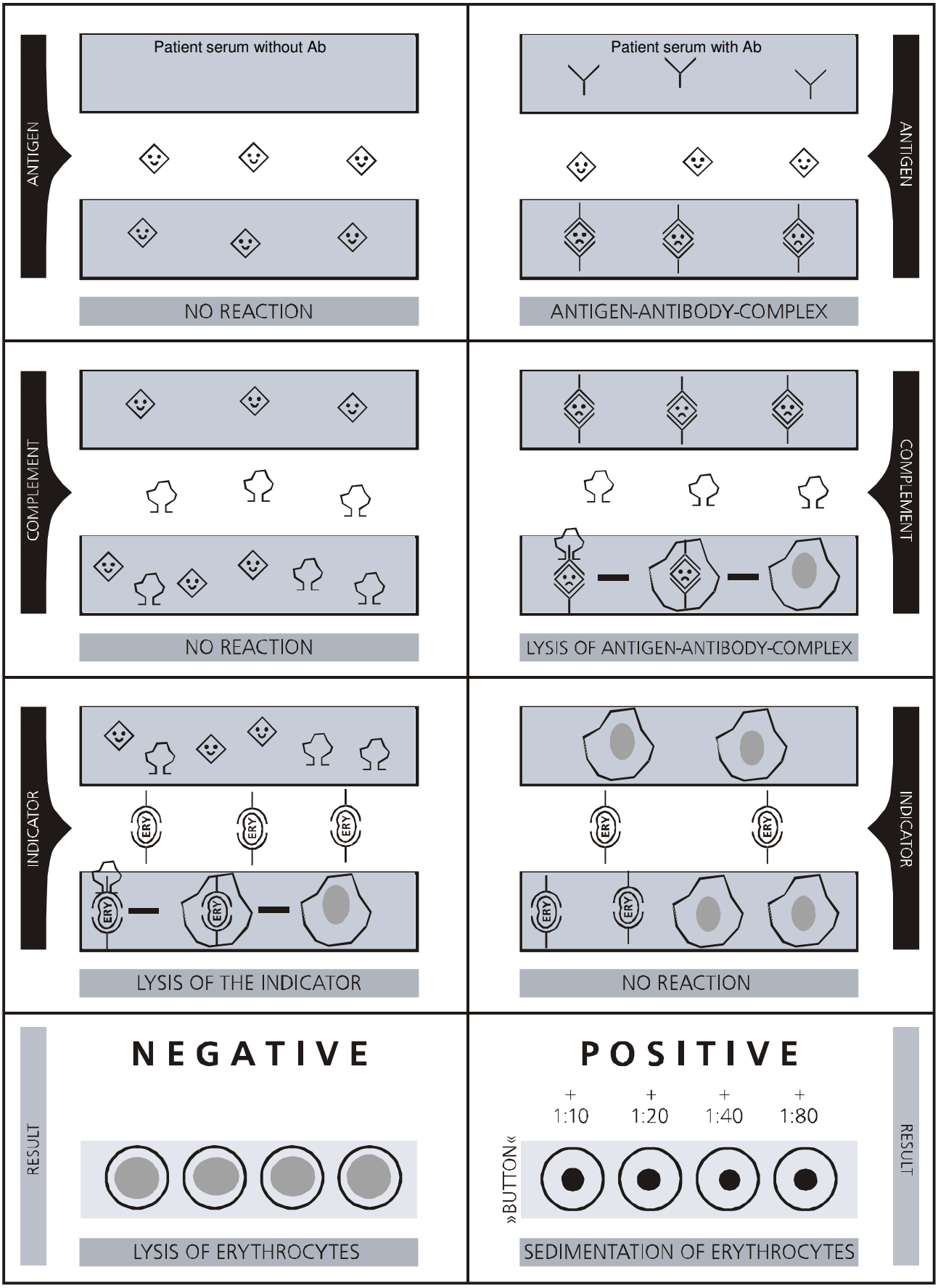
2. METHOD

The Complement Fixation Test (CFT) is a classical serological test designed to measure serum levels of specific antibodies to pathogens, e. g. bacteria, viruses, parasites and fungi. The CFT is performed as a micromethod according to the Kolmer technique (fixation at 2 - 8 °C, over night) and according to DIN 58 969 and WHO guidelines.

3. TEST PRINCIPLE

A pathogen-specific antigen is mixed with the test serum. In the presence of specific antibodies, immune complexes form. Added Complement is activated by these immune complexes and, due to it’s labile nature, inactivated during the subsequent incubation step. In the absence of specific antibodies immune complexes are not formed and consequently the Complement components remain in their non-fixed state.
In order to detect the presence of specific immune complexes a hemolytic system (HS) consisting of antibody-coated erythrocytes is added. If the complement has been fixed by antigen-antibody complexes in the serum, the erythrocytes will remain intact as Complement is no longer available to react with the HS [Ab-Ag] (inhibition of hemolysis). In contrast, the erythrocytes will be lysed if Complement is accessible. After centrifugation, unlysed erythrocytes form a button on the bottom of the microtiter plate. To improve button formation sedimentation should be supported by centrifugation. Titer determination is enabled by serial dilution of the serum.

CFT Principle



4. REAGENTS

Preparation of reagents for the test run, storage and stability

4.1 Antigen / Control Antigen

Order number see product list; lyophilized, reconstitute with distilled water; preservative: 0.01 % thiomersal	**Working dilution** dilute in CFT buffer (CFTB) as indicated on the label (e.g. 1:4); it is recommended to use freshly prepared working dilution!
Storage & stability: lyophilized at 2 - 8 °C until expiry date (see label); dissolved in 1 ml distilled water at 2 - 8 °C: 1 week; frozen in small portions (as stock solution) at -20 °C: two months	

Antigens produced using infected cell cultures may contain host cell components. Some sera may have antibodies directed against such cell residues. If such antibodies are present, and are not compensated for, false positive results can be obtained. For detection of these non-specific reactions **control antigens** are used. Control antigens are derived from uninfected cell material of the corresponding host cells which are prepared similarly to the antigen. So far as the control antigens are available, it is strongly recommended to utilize them, in parallel with the specific antigen, in each test run.

4.2 Positive and Negative Control Sera

Order number see product list; lyophilized, reconstitute in 0.1 ml distilled water; preservative: < 0.1 % sodium azide	**Working dilution** 1:10 dilution in CFT buffer (CFTB); inactivate controls for 30 min at 56 °C in a water bath; it is recommended to use freshly prepared working dilution!
Storage & stability lyophilized at 2 - 8 °C until expiry date (see label); dissolved in 0,1 ml distilled water at 2 - 8 °C: 2 months; at working dilution: 1 week (before each test, sera have to be inactivated again for 10 minutes at 56 °C)	

4.3 Complement

Order numbers **9001,** 1 x 1 ml **9001.5,** 5 x 1 ml lyophilized; reconstitute in 1 ml distilled water; preservative: boric acid	**Working dilution** using 1 % sheep erythrocytes for completion of the hemolytic system: complement dilution in CFT buffer (CFTB) according the label (e.g. 1:55); using the ready-to-use hemolytic system: 1.4-fold lower complement dilution in CFT buffer (CFTB) as indicated on the label (e.g. 1:40)
Storage & stability lyophilized at 2 - 8 °C until expiry date (see label); dissolved in 1 ml distilled water at 2 - 8 °C: 4 weeks **Always prepare working dilution freshly!**	

4.4 Amboceptor

Order number 9002 hemolytic anti-sheep erythrocyte serum, 2 ml preservative: < 0.1 % sodium azide	**Working dilution** dilution in CFT buffer (CFTB) as indicated on the label (e.g. 1:2500)
Storage & stability undiluted at 2 - 8 °C until expiry date (see label) **Always prepare working dilution freshly!**	

4.5 CFT Buffer (CFTB)

Order number 9009 1 x 2 L; dissolve content of 1 vial (powder) in 2 L distilled water; pH 7.3 +/- 0.1 (recommendation: check pH-value)	**Ready-to-use after dissolution**
Storage & stability as powder at 2 - 8 °C until expiry date (see label); dissolved at 2 - 8 °C: 12 weeks (to avoid contamination please store in aliquots is recommended)	

4.6 Erythrocytes

Order numbers **E-400,** 10 ml **E-410,** 50 ml **available from** **Labor Dr. Merk & Kollegen GmbH, Ochsenhausen, Germany** 50 % whole blood suspension in Alsever's buffer (sheep erythrocytes)	**Working dilution** wash erythrocytes in physiological sodium chloride solution or CFT buffer (CFTB); adjust the suspension with CFT buffer (CFTB) photometrically to 1 % (calibration at 578 nm with an OD value of 0.200 +/- 0.01)
Storage & stability: undiluted at 2 - 8 °C: until expiry date (see label); 1 % suspension: 1 week	
Order numbers **E-420,** 10 ml **E-430,** 50 ml **E-450,** 100 ml **available from** **Labor Dr. Merk & Kollegen GmbH** **Ochsenhausen, Germany** 1 % Sheep Erythrocyte suspension	**Ready-to-use** **for the production of the hemolytic system;**
Storage & stability at 2 - 8 °C until expiry date (see label)	

4.7 Ready-to-use Hemolytic System

Order numbers **HS-020,** 20 ml **HS-050,** 50 ml **HS 100,** 100ml **available from** **Labor Dr. Merk & Kollegen GmbH** **Ochsenhausen, Germany** Hemolytic System for CFT	**Ready-to-use**
Storage & stability at 2 - 8 °C until expiry date (see label)	

5. SAMPLES

The only acceptable sample material for the Complement Fixation Test is serum. Do not use plasma! Bivalent cations, essential for the CF reaction, are removed by the action of EDTA and citrate in plasma preparations.

6. MATERIAL REQUIRED BUT NOT SUPPLIED

- Common laboratory equipment (pipettes, timer, pH measuring system, glass vessels)
- Microtiter plates with U-shaped bottom
- Cover for microtiter plates (lid or second microtiter plate)
- Incubator (4 °C and 37 °C)
- Water bath (37 °C and 56 °C)
- Aqua dest.
- Glass tubes for serum inactivation (100 x 11/12 mm)
- Plastic tubes for dilution of antigen und control antigen (100 x 16 mm, polystyrene)
- Centrifugation tubes (e.g. 50 mL Falcon tubes); only required when using the 50 % Sheep Erythrocyte suspension

7. PRETESTING

Due to standardization of all reagents provided by Institut Virion\Serion GmbH, pretesting for the determination of the appropriate Amboceptor and Complement concentrations is not necessary. The Amboceptor and Complement dilutions stated on the labels are suitbale for the complete range of antigens available. Minor variations can be compensated for by regulation of the hemolysis time.
Sheep Erythrocytes and the Hemolytic System (order numbers E-400 / E-410, E-420 / E-430 / E-450 and HS-020 / HS-050 / HS 100) obtained from Labor Dr. Merk & Kollegen GmbH are also standardized for use with CFT reagents supplied by Institut Virion\Serion GmbH.

In the case of using non-standardized components for CFT, proceed as follows:

7.1. Complement Titration

1st day: Dilute complement 1:2 with CFT buffer (CFTB).

Layout to find the working dilution:

Complement (1:2 diluted in CFT buffer)	ml	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 ...
+											
CFT buffer (CFTB)	ml	1.9	2.4	2.9	3.4	3.9	4.4	4.9	5.4	5.9	6.4
		↓	↓	↓	↓	↓	↓	↓	↓	↓	↓
	µl	25	25	25	25	25	25	25	25	25	25
Antigen dilution	µl	25	25	25	25	25	25	25	25	25	25
CFT buffer (CFTB)	µl	25	25	25	25	25	25	25	25	25	25

- shake and cover microtiter plate
- incubate overnight (16 to 20 hours) at 2 - 8 °C
- 2nd day: prepare the hemolytic system
  mix amboceptor working dilution and erythrocyte suspension in equal parts; alternatively employ the ready-to use Hemolytic System
- incubate the hemolytic system for 30 minutes at 37 °C / incubation of microtiter plates takes place simultaneously at 37 °C in the incubator
- add 50 µl hemolytic system to each well
- incubate plates for 15-30 minutes in a 37 °C incubator (cover plates; if possible, place plates separately; do not stack more than four plates), check hemolysis after 15 minutes, shake carefully before reading
- the incubation is stopped when the Complement controls with 2 and 1 units show complete hemolysis and no hemolysis is detectable in the wells containing 0.5 and 0.25 complement units
- centrifuge plates for 5 minutes at 700 x g
- reading of results is possible within the next 30 to 60 min

The highest dilution with complete hemolysis is used as the complement working dilution. This contains 2 units, as the complement was already diluted 1:2 before the evaluation.

7.2. Amboceptor Titration

Layout to find the working dilution

Amboceptor (diluted 1:100 in CFT buffer)	ml	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1 ...
+									
CFT buffer (CFTB)	ml	1.9	2.9	3.9	4.9	5.9	6.9	7.9	8.9
		↓	↓	↓	↓	↓	↓	↓	↓
	µl	25	25	25	25	25	25	25	25
Erythrocytes (1 %)	µl	25	25	25	25	25	25	25	25
CFT buffer (CFTB)	µl	25	25	25	25	25	25	25	25
Complement dilution	µl	25	25	25	25	25	25	25	25

- shake plates well and cover
- incubate for 30 minutes at 37 °C
- centrifuge the plates for 5 minutes at 1500-2000 rpm

The highest dilution that shows complete hemolysis corresponds to one unit of the amboceptor's hemolyzing titer (small cell residues can be disregarded). In the test 2 units are used (≙ ½ hemolyzing titer). Example: complete hemolysis when using a dilution of 1:4000 → a working dilution of 1:2000 is used

8. PREPARATION OF SAMPLES AND REAGENTS

8.1 Sample Preparation and Storage

- dilute patients sera as well as positive and negative control sera in glass tubes 1:10 in CFT buffer (CFTB), (e.g. 0.1 ml patient's serum with 0.9 ml CFT buffer)
- incubate for 30 minutes at 56 °C in a water bath (inactivation of endogenous complement)

Diluted sera can be kept for a week at 2 - 8 °C if sealed well. Before each test, inactivate sera again for 10 minutes at 56 °C.

8.2. Preparation of Erythrocyte Suspension

Preparation of a ready-to-use erythrocyte suspension (1 %) from a 50 % whole blood suspension in Alsever's buffer (order numbers E-400 and E-410, Labor Merk & Kollegen GmbH, Ochsenhausen - Germany).

- use content of 1 flask sheep erythrocytes (50 %, 50 ml): decant Alsever's buffer from sedimented erythrocytes
- resuspend erythrocytes in 10-fold volume 0.9 % NaCl solution (freshly prepared) and transfer them into centrifuge tubes
- centrifugation for 10 minutes at 1500 x g
- remove supernatant and resuspend erythrocytes in 0.9 % NaCl-solution
- repeat washing procedure with 0.9 % NaCl solution twice
- decant supernatant and wash erythrocytes in CFT buffer (CFTB)
- centrifugation for 10 minutes at 1500 x g, decant supernatant again
- add approx. 800-900 ml CFT buffer (CFTB) into an Erlenmeyer flask and resuspend erythrocytes carefully
- for measurement: Dilute 0.1 ml of mixed erythrocytes in 5 ml CFT buffer (CFTB) and mix carefully. After transferring the solution into a cuvette (path length 1 cm) measure the optical density photometrically against CFT buffer (CFTB) as blank (578 nm filter). An optical density of 0.2 +/- 0.01 must be achieved. In case of receiving optical densities higher than 0.2, further dilute suspension with CFT buffer (CFTB).

Note: If you need smaller amounts, mix the 50 % stock solution carefully and transfer the required amount into a centrifuge tube. Follow the instructions listed above.

8.3. Calculation of Required Reagents

8.3.1 Required Reagents per Patient

The following specifications are calculated per patient test including the use of negative, positive and complement control. The information in brackets is in accordance to the exactly calculated values; the ones above are the recommended amounts.

Approximate quantities (allowing for losses by pipetting):

	Amount for 1 patient	Amount for additional patient	Amount for 13 patients max. (capacity of the microtiter plate)
Patient and control sera (ml)	per patient 0.100	per patient 0.100	0.100
Antigen (ml)	0.500 (0.475)	0.150 (0.125)	2.500 (1.975)
Complement (ml)	0.550 (0.500)	0.200 (0.150)	2.500 (2.300)
Hemolytic system (ml)	1.200 (1.100)	0.400 (0.300)	5.000 (4.700)

8.3.2. Number of possible Tests per 1 ml Antigen

working dilution	number of **wells** (per 1 ml antigen)	number of **tested patients** 5 titer steps per patient (per 1 ml antigen)
1:4	160	32
1:6	240	48
1:8	320	64
1:10	400	80
1:12	480	96
1:16	640	128
1:20	800	160
1:24	960	192
1:30	1200	240
1:32	1280	256
1:40	1600	320

8.4. Procedure for Sera with Anticomplementary Activity

Anticomplementary activity refers to the characteristics of some sera to inhibit hemolysis to varying degrees. To identify this property a serum control (test run without antigen) is included for each serum. Anticomplementary activity can be induced by immunoglobulin aggregation, rheumatoid factors or drugs (dextranes) and can often be found in hemolytic or contaminated sera and after repeated freezing and thawing. After pretreating with undiluted complement, to absorb this activity, the sera can then be analyzed in the CFT.

For pretreatment, dilute the serum 1+1 with complement (example: 100 µl of undiluted serum + 100 µl of undiluted complement). The reaction mixture has to be incubated for 30 minutes at 37 °C (in a water bath) or 60 minutes at room temperature. After addition of 800 µl CFT buffer (CFTB) the serum is diluted to an end concentration of 1:10. After incubation for 30 minutes at 56 °C the serum can be used in the CFT.

The interpretation of results from these sera should be treated with caution as this pre-treatment may adversely influence the results.

If anticomplementary activity persists in pretreated sera, a new serum sample must be obtained. Patients whose sera repeatedly show anticomplementary activity should be examined for pathological states such as autoimmune disease, paraproteinemia, etc.

9. CFT PERFORMANCE

9.1 Overview

1st DAY

predilution and inactivation of
patient and control sera
⇩
add buffer to wells
⇩
perform sera titration
⇩
add antigen
⇩
add complement
⇩
INCUBATION 16 – 20 hours /
2 – 8°C

2nd DAY

prepare hemolytic system
or employ the ready-to-use system
⇩
INCUBATION 30 minutes / 37°C
hemolytic system and
microtiter plates
⇩
add hemolytic system to wells
⇩
INCUBATION ca. 15 minutes
/ 37°C
⇩
check hemolysis progression
⇩
centrifugation for 5 minutes (at 700 x g)
⇩
EVALUATION

9.2 Test procedure

1st DAY

Prepare microtiter plates (U-form) and generate a protocol sheet. If possible use one microtiter plate for each antigen analyzed (time of hemolysis may vary slightly from antigen to antigen). If the use of a control antigen is necessary, the serum must be analyzed in two parallel test runs (antigen and control antigen). **For each antigen a positive and a negative control as well as a complement control must be included!**

Layout for microtiter plate with antigen and control antigen

	test run with antigen						test run with control antigen					
titer:	SC*	1:10	1:20	1:40	1:80	1:160	SC*	1:10	1:20	1:40	1:80	1:160
well:	1	2	3	4	5	6	1	2	3	4	5	6
pos. control												
neg. control												
patient 1												
patient 2												
patient 3												
etc.												
complement control		2	1	0.5	0.25			2	1	0.5	0.25	

2;1;0.5;0.25 = complement units of complement control

SC* = serum control (without antigen)

Test run for every patient serum or control:

- add 25 µl CFT buffer (CFTB) into well 1, and wells 3 to 6 (or further) within one row
- pipette 25 µl diluted serum (1:10, patient or control sera) into well 1, 2 and 3
- titration of sera starting from well 3: titrate 25 µl serum dilution from each well into the next up to well 6. Discard 25 µl from the last well. The titration corresponds to a dilution series of 1:10 to 1:160 (or higher).
- pipette 25 µl each of antigen or control antigen-working dilution into wells 2 to 6 (or further); well 1 contains the serum control (for evaluation of anticomplementary activities), do not add antigen to this well
- pipette 25 µl of complement working dilution into well 1 to 6 (or further)

Test run for complement control:

- pipette CFT buffer (CFTB) into wells 3, 4 and 5 in one row
- pipette 25 µl working dilution of complement in well 2 and 3
- starting from well 3: titrate 25 µl from each well into the next up to well 5. Discard 25 µl from well 5. This titration results in a dilution series of 2, 1, 0.5 and 0.25 complement units
- pipette 25 µl of each antigen (or control antigen) and CFT buffer (CFTB) in wells 2 to 5
- cover and incubate microtiter plate for 16 to 20 hours at 2 - 8 °C

2nd DAY

Preparation of the hemolytic system:
Mix sedimented erythrocytes carefully to generate a homogeneous suspension before starting. Prepare the hemolytic system by mixing equal amounts of the amboceptor working dilution with the 1 % erythrocyte suspension. Incubate the suspension for 30 minutes at 37 °C in a water bath.
Alternatively, employ the ready-to-use hemolytic system (see 4.7). Incubate the required amount of solution for 15 minutes at 37 °C in a water bath.

Microtiter plates from day 1:

- prewarm the microtiter plates from the 1st day for 30 minutes at 37 °C in an incubator (cover plates; if possible, place plates separately; do not stack more than four plates); prewarm hemolytic system at the same time in a water bath;
- pipette 50 µl of the freshly prepared hemolytic system into each well, carefully shake microtiter plates to mix
- incubate microtiter plates in a 37 °C incubator for 15 - 30 minutes (cover plates; if possible, place microtiter plates separately; do not stack more than four plates); check hemolysis after 15 minutes, shake well previously
- the incubation is stopped when the Complement controls with 2 and 1 units show complete hemolysis and no hemolysis is detectable in the wells containing 0.5 and 0.25 complement units
- centrifuge plates for 5 minutes at 700 x g; reading is possible within the next 30 to 60 minutes after centrifugation (store at 2 - 8 °C)

If no centrifuge is available, reading can be performed within 30 minutes up to a maximum of 60 minutes. In this case the button formation at the bottom of the microtiter plate is less distinct.

If the ready-to-use hemolytic system is employed for SERION CFT a higher complement concentration (approx. factor 1.4) is necessary, which corresponds to e.g. a 1:40 dilution instead of e.g. a 1:55 dilution.

- mix the hemolytic system thoroughly
- incubate microtiter plates of day 1 in a 37 °C incubator for 15 - 30 minutes (cover plates; if possible, place microtiter plates separately; do not stack more than four plates); check hemolysis after 15 minutes, shake well previously
- pipette 50 µl of the ready-to-use hemolytic system into each well, carefully shake microtiter plates to mix
- follow the general CFT instruction manual
- lysis incubation times can be extended for up to 10 minutes

Reading:

100 %	inhibition of hemolysis records a value of	4	= positive
75 %	inhibition of hemolysis records a value of	3	= positive
50 %	inhibition of hemolysis records a value of	2	= negative
25 %	inhibition of hemolysis records a value of	1	= negative
traces of	inhibition of hemolysis record a value of	+/-	= negative
	complete hemolysis records a value of	0	= negative

Only values 3 and 4 are regarded as positive. Hemolysis inhibitions below 75% have to be regarded as negative.

Criteria of validity

- The negative control must be negative (complete hemolysis; titer < 1:10).
- The positive control must show the predicted titer as indicated on the label (+/- 1 titer).
- In the serum control hemolysis inhibition may not occur (hemolysis inhibition indicates anticomplementary activity).
- In the complement controls with 2 and 1 units complete hemolysis has to be achieved whereas no hemolysis should occur in the wells containing 0.5 and 0.25 complement units.

10. STATEMENTS OF WARNING AND DISPOSAL

All reagents and human specimens should be handled carefully, using established good laboratory practice.

- Antigen and control antigens have been inactivated by established methods; all control sera of human origin have been tested and found to be negative for HBs-Ag-, HCV- and HIV-antibodies.
- Control sera, antigens, control antigens as well as patient's sera must be regarded as potentially infectious material. Thus, these materials should be handled according to the safety instructions for biohazardous substances. It is recommended to decontaminate potential infectious materials after the test run.
- Do not smoke, eat or drink in areas in which specimen or kit reagents are handled.
- Wear disposable gloves, laboratory coat and safety glasses while handling kit reagents or specimen. Wash hands thoroughly afterwards.

For disposal please follow the relevant statutory requirements!

11. PERFORMANCE CHARACTERISTICS AND EXPECTED VALUES

The CFT allows detection of complement binding IgG_1, IgG_2, IgG_3 and IgM antibodies. Due to the lack of antibody class differentiation repeated testing (paired sera) is necessary to assess the infection status (e.g. acute, recent, chronic). If only a single serum sample of a patient is analyzed, no reliable statement is possible about the infection status.
An at least 4-fold rise of titer in two consecutive sera that are analyzed in parallel serves as a proof for an acute infection. Elevated titers in both serum samples suggest an acute or recent infection. For discrimination between these infection stages, further diagnostic methods (IgM and IgG-specific detection systems) are required. A significant decrease in titer seen in consecutive sera is considered as an evidence of convalescence from a recent infection.
Due to these performance characteristics the CFT may be used as a screening test for acute infections. For serological status determination (protective titers, past infections) the CFT is not suitable.

In contrast to other diagnostic methods the CFT allows for the diagnosis of reinfections and endogenous reactivations in patients without IgM antibody synthesis.

Negative CFT titers do not definitely exclude an acute infection. This is possible with sera from patients with early infection stages, local infections (e.g. Gonorrhea, Mycoplasma, Chlamydia, Herpes-Simplex), or from immunosuppressed patients (e.g. transplant recipients, HIV positive patients). In such cases additional tests should be performed (e.g. PCR, isolation of the pathogen).

12. DIAGNOSTIC EVALUATION OF RESULTS / BORDERLINE VALUES

Adenovirus	1:20	
Brucella	1:10	
Campylobacter intestinalis	1:10	
Campylobacter jejuni	1:10	
Chlamydia	1:10	
Coxiella burnettii	1:10	
Coxsackievirus	1:20	
Cytomegalovirus	1:10	infants
	1:20	children
	1:40	adults
Echovirus	1:20	
Epstein-Barr Virus	1:20	
Herpes Simplex Virus 1/2	1:40	
Influenza A/B Virus	1:40	
Legionella pneumophila	1:10	
Leptospira species	1:10	
Listeria monocytogenes	1:10	
Measles Virus	1:10	children
	1:20	adults
Mumps Virus	1:10	
Mycoplasma pneumoniae	1:10	
Neisseria	1:10	
Parainfluenza Virus 1, 2, 3	1:40	
Picorna Virus Pool	1:20	
Poliovirus	1:10*	
Resp. Syncytial-Virus (RSV)	1:10	children
	1:40	adults
Rotavirus	1:10	children
	1:40	adults
TBE Virus	1:10	
Toxoplasma gondii	1:10	
	1:20**	
Varicella-Zoster Virus	1:20	
Yersinia-Species	1:10	

* After Polio vaccination 1:40 titers are possible in CFT
** IgM-antibody detection in addition

13. BIBLIOGRAPHY

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Serodiagnostik von Infektionskrankheiten Komplementbindungsreaktion (KBR), DIN 58 969, Part 10, Edition: 2003;
Publisher: Beuth Verlag GmbH, Burggrafenstraße 6, Berlin

KBR/CFT/RFC/OWD/PFK
(V 09/01-1)

Symbole auf den Etiketten/ symbols on labels/ Symbole sur les étiquettes/ Símbolos en las etiquetas/ Simboli sulle etichette/ Símbolos nos rótulos / Symboler på etiketterna/ Symboler på etiketterne/ Etikettien symbolit/ Symbolen op de etiketten/ Symboler på etikettene/ Σύμβολα στις ετικέτες / Symbole na etykietach / symboly na nálepkách / Oznake na nalepkah / Symboly označení na obalu / jelölés a címkén/ Символы на этикетках

LOT Charge/ lot/ Lot/ lote/ carica/ lote/ parti/ Parti/ erä/ Charge/ lot nr. / Παρτίδα / Nr serii /šarža / Serija /Šarže / gyártási szám/ партия

REF Referenz oder Bestellnummer/ reference or order number/ Référence ou numéro de commande/ referencia o número de pedido/ codice di riferimento o di commissione/ referência ou número de encomenda/ referens eller beställningsnummer/ Reference eller bestillingsnummer/ viite tai tilausnumero/ Referentie of bestelnummer/ referanse eller bestillingsnummer / Αριθμός παραγγελίας ή αναφοράς / Nr odniesienia lub nr zamówieniowy / referencia alebo číslo objednávky / Referenčna številka ali številka za naročanje /Referenční číslo nebo číslo objednávky / hivatkozási vagy rendelési szám/ ссылка или номер заказа

No. Bestellnummer (bei Produkten ab 07/2005)/order number (products since 07/2005)/ Numéro de commande (pour les produits à partir de 07/2005)/ número de referencia (productos desde 07/2005)/ Numero di ordinazione (per i prodotti dal 07/2005)/ Número de encomenda (produtos desde 07/2005)/ Beställningsnummer (för produkter fr o m 07/2005)/ bestillingsnummer (produkter efter 07/2005)/ tilausnumero (tuotteet 07/2005 jälkeen)/ Bestillingsnummer (for produkter fra 07/2005)/ Bestelnummer (bij producten vanaf 07/2005)/Αριθμός παραγγελίας (σε προϊόντα από 07/2005)/ Produkt katalogowy (produkty od 07/2005)/ Katalógové číslo (u produktov od 07/2005)/ številka za naročanje (za izdelke po 07/2005)/ pořadové číslo (produkty od 07/2005)

x...y°C Lagern zwischen x und y Grad Celsius/ store between x and y degree celsius/ A conserver entre x et y °C/ almacenar entre “x” y “y” grados Celcio/ conservare fra x e y gradi centigradi/ armazenar entre x e y graus Celsius/ lagra mellan x och grader Celcius/ Opbevares mellem x og y grader Celcius/ Säilytys x - y Celsius-asteen lämpötilassa/ Bewaren tussen x en y graden Celcius/ oppbevares mellom x og y grader Celsius/ Αποθήκευση μεταξύ x και y βαθμούς Κελσίου / Przechowywać w temperaturach od x do y stopni Celsjusza / skladujte pri teplote medzi x a y ° C / Shranjujte pri temperaturi med x °C in y °C /uchovávejte při teplotě od x do y °C / tárolás x és y Celsius fok között/ хранить при температуре от x до y градусов Цельсия

CE CE-Markierung bei Erfüllung der IVD Richtlinie 98/79 EG/ CE marking according to IVD guideline 98/79 EC/ CE marquage conforme aux IVD directives 98/79 EC/ marcación CE según directriz de IVD 98/79 CE/ contrassegno CEE secondo direttive IVD 98/79 CEE/ marcação CE segundo a directiva dos IVD 98/79 CE/-markering enligt IVD direktiv 98/79 EG/ CE-mærkning i henhold til IVD direktivet 98/79 EF/ CE-merkintä vastaa IVD-direktiiviä 98/79 EY/ CE markering volgens IVD richtlijnen 98/79 EG/ CE merket i følge IVD 98/79 EC/ Σήμανση CE βάσει της οδηγίας IVD 98/79 EG / Znak CE przy wypełnieniu wymagań dyrektywy IVD 98/79 EG / označenie CE pri splnení požiadaviek Smernice IVD 98/79 EC/ označevanje CE v skladu s smernicami ES IVD 98/79 / označení CE podle pokynu IVD 98/79 ES / CE jelölés az IVD 98/79 EU Bizottsági irányelvek szerint/ CE-маркировка при соблюдении норм IVD 98/79 EC

CE0197 CE-Markierung bei Erfüllung der IVD Richtlinie 98/79 EG gemäß Anhang II, Liste B/ CE marking according to IVD guideline 98/79 EC according to annex II, list B/ CE marquage conforme aux IVD directives 98/79 EC conformément à l'annexe II, liste B/ marcación CE según directriz de IVD 98/79 CE conforme al anexo II, lista B/ contrassegno CEE secondo direttive IVD 98/79 CEE secondo l'Allegato II, lista B/ marcação CE segundo a directiva dos IVD 98/79 CE conforme o anexo II, lista B/ markering enligt IVD direktiv 98/79 EG enligt bilaga II, förteckning B/ CE-mærkning i henhold til IVD direktivet 98/79 EF i henhold til tillæg II, liste B/ CE-merkintä vastaa IVD-direktiiviä 98/79 EY liitteen 2, listan B mukaisesti/ CE markering volgens IVD richtlijnen 98/79 EG volgens aanhangsel II, lijst B/ CE merket i følge IVD 98/79 EC ifølge tillegg II, liste B/ Σήμανση CE βάσει της οδηγίας IVD 98/79 EG Σύμφωνα με το παράρτημα II / λίστα B / Znak CE przy wypełnieniu wymagań dyrektywy IVD 98/79 EG zgodnie z załącznikiem II, wykaz B /označenie CE pri splnení požiadaviek Smernice IVD 98/79 EC podľa prílohy II / označevanje CE v skladu s smernicami ES IVD 98/79 EC in v skladu s seznamom B priloge II / označení CE podle pokynu IVD 98/79 ES, podle doplňku II, seznam B / CE jelölés az IVD 98/79 EU Bizottsági

irányelvek szerint, a II függelék B listájának megfelelően/ CE-маркировка при соблюдении норм IVD 98/79 EC, приложение II, список B

⌛ Verfallsdatum/ expiry date/ date d'expiration/ Fecha de caducidad/ Data di decadenza/ Data de validade/ Till förfallodagen den/ Forfaldsdag/ Viimeinen käyttöpäivä/ Vervaldatum/ Forfallsdato/ Ημερομηνία λήξης / Termin ważności / dátum expirácie / uporabno do / doba použitelnosti / lejárati idő/ Срок годности

AG Antigen/ antigen/ Antigène/ antígeno/ antigene/ antigénio/ antigeeni/ Antigeen/ Αντιγόνο / Antygen / antigén / антиген

CAG Kontrollantigen/ control antigen/ Antigène de contrôle/ antígeno de control/ controllo antigene/ antigénio de controlo/ kontrollantigen/ Kontrol antigen/ kontrolliantigeeni/ Controleantigeen/ kontroll antigen/ Αντιγόνο ελέγχου / Antygen kontrolny / kontrolný antigén / kontrolni antigen/kontrolní antigen / kontrollantigén/ контрольный антиген

POS Positivkontrolle/ positive control/ Contrôle positif/ control positivo/ controllo positivo/ controlo positivo/ positivkontroll/ Positiv kontrol/ positiivinen kontrolli/ Positieve controle/ positiv kontroll/ Θετικός έλεγχος / Kontrola pozytywna / pozitívna kontrola /pozitivna kontrola/pozitivní kontrola / Pozitív kontroll/ позитивный контроль

NEG Negativkontrolle/ negative control/ Contrôle négatif/ control negativo/ controllo negativo/ controlo negativo/ negativkontroll/ Negativ kontrol/ negatiivinen kontrolli/ Negatieve controle/ negativ kontroll/ Αρνητικός έλεγχος / Kontrola negatywna /negatívna kontrola / negativna kontrola/ negativní kontrola / Negatív kontroll/ негативный контроль

TIT Titer/ titer/ Titre/ título/ titulo / titre / titteri/ τίτλος / Miano / titr/ титр

WDIL Arbeitsverdünnung/ working dilution/ Dilution d'utilisation/ disolución de trabajo/ diluizione di lavoro/ diluição de trabalho/ arbetsförtunning/ Arbejdsfortynding/ käyttölaimennusaste/ Werkverdunning/ arbeidsfortynning/ Αραίωση εργασίας / Rozcieńczenie robocze / pracovné rozriedenie / delovna raztopina/pracovní ředění / munkahígítás/ рабочее разбавление

COMP Komplement/ complement/ Complément/ complemento/ komplement/ komplementti/ Complement/ / Συμπλήρωμα/ комплемент

CFTB KBR Puffer/ CFT buffer/ RFC tampon

HS Hämolytisches System/ hemolytic system/ Système hémolytique/ sistema hemolítico/ sistema emolitico/ sistema hemolítico/ hemolytiskt system/ Hæmolytisk system/ hemolyyttinen järjestelmä/ Hemolytisch systeem/ hemolytisk System/ Αιμολυτικό σύστημα / System hemolityczny / hemolytický systém/ hemolitični sistem/ hemolytický systém / Hemolitikus rendszer/ гемолитическая система

ERY Erythrozyten/ erythrocytes/ Hématies/ eritrocitos/ eritrociti/ eritrócitos/ erytrocyter/ Erythrocytter/ erytrosyytit/ Erytrocyten/ erytrocytter/ Ερυθροκύτταρα / Erytrocyty / erytrocyty / eritrociti / vörösvértestek/ эритроциты

AMB Ambozeptor/ amboceptor/ Serum Hemolytique/ amboricettore/ Amboceptor/ amboseptori/ Amboceptor/ Αμφιδοχεύς / amboceptor vagy hemolizin/ амбоцептор

DIL verdünnen oder lösen in/ dilute or disolve in/ à diluer ou à dissoudre/ disolver o diluir/ diluire o sciogliere in/ diluir ou dissolver em/ späd ut eller lös upp i/ Fortyndes eller opløses i/ laimennetaan tai liuotetaan/ verdunnen of oplossen in/ fortynne eller løs opp i/ Αραίωση ή διάλυση σε / rozcieńczyć lub rozpuścić w / rozriediť alebo rozpustiť v / razrdečite ali raztopite v /rozředit nebo rozpustit v / hígító/ развести или растворить в

AQUA destilliertes Wasser/ aqua detillata/ Eau distillée/ agua destilada/ acqua distillata/ água destilada/ destillerat vatten/ Destilleret vand/ tislattu vesi/ gedestilleerd water/ destillert vann/ Απεσταγμένο νερό / Woda destylowana / destilovaná voda/ destilirana voda / desztillált víz/ дистиллированная вода

IVD In-vitro Diagnostik Anwendung/ in-vitro diagnostic use/ Diagnostic in vitro/ uso de diagnóstico in-vitro/ In-vitro diagnostic use/ para uso no diagnóstico in vitro/ in vitro diagnostik användning/ In-vitro diagnostisk anvendelse/ in vitro -diagnostiikkakäyttö/ Gebruik voor in-vitro diagnose/ in-vitro diagnostik bruk/ Χρήση διαγνωστικής εντός σωλήνα /do diagnostyki in-vitro / pre účely diagnostiky in vitro / diagnostična uporaba *in vitro* / diagnostické použití in-vitro / In vitro használatra/ применение диагностики in-vitro

1121 Adenovirus / Adeno, Virus / Adeno-Virus / Adenovírus / Αδενοιός / Adenowirus / adenovírus / adenovirus / аденовирус

1297 Brucella / Brucela/ Βρουκέλλα/ бруцелла

1207 Campylobacter fetus ssp. Intestinalis / καμπυλοβακτηρίδιο fetus ssp. Intestinalis/ кампилобактер fetus subspecies intestinalis

1206 Campylobacter jejuni / καμπυλοβακτηρίδιο νηστίδος/ кампилобактер jejuni

1122 * Chlamydia / Clamidia/ Χλαμύδια / chlamýdia/ хламидии

1227 Coxiella burnetii (Q-Fieber) Phase 1 / Coxiella burnetii (Q-fever) phase 1 / Coxiella Burnetii (Q, fiebre) Phase 1 / Coxiella burnetii (Febre Q) fase 1 / Coxiella Burnetii (Q-Feber) fase 1 / Ρικέτσια του πυρετού Q φάση 1 / Coxiella burnetii (gorączka Q) faza 1 / Coxiella burnetii (Q-horúčka) fáza 1 / Coxiella burnetii (mrzlica Q) faza 1 / Coxiella burnetii (Q-horečka) fáze 1 / Coxiella burnetii (Q láz) 1-es fázis/ коксиэла бурнетии (Q-лихорадка) фаза 1

1123 Coxiella burnetii (Q-Fieber) Phase 2 / Coxiella burnetii (Q-fever) phase 2 / Coxiella Burnetii (Q, fiebre) Phase 2 / Coxiella burnetii (Febre Q) fase 2 / Coxiella Burnetii (Q-Feber) fase 2 / Ρικέτσια του πυρετού Q φάση 2 / Coxiella burnetii (gorączka Q) faza 2 / Coxiella burnetii (Q-horúčka) fáza 2 / Coxiella burnetii (mrzlica Q) faza 2 / Coxiella burnetii (Q-horečka) fáze 2 / Coxiella burnetii (Q láz) 2- es fázis/ коксиэла бурнетии (Q-лихорадка) фаза 2

9060 Coxsackievirus A9/ Coxsackie virus A9/ vírus Coxsackie A9 / Ιός της ψευδοπολιομυελίτιδας A9 / Wirus Coxsackie A9 / Virus Coxsackie A9 / virus coxsasckie A9 / Coxsackie vírus A9/ Кокссаки вирус (С-вирус) А9

1172 Coxsackievirus B1/ Coxsackie virus B1/ vírus Coxsackie B1 / Ιός της ψευδοπολιομυελίτιδας B1 / Wirus Coxsackie B1 / Virus Coxsackie B1 / virus coxsasckie B1 / Coxsackie vírus B1/ Кокссаки вирус (С-вирус) В1

1173 Coxsackievirus B2/ Coxsackie virus B2/ vírus Coxsackie B2 / Ιός της ψευδοπολιομυελίτιδας B2 / Wirus Coxsackie B2 / Virus Coxsackie B2 / virus coxsasckie B2 / Coxsackie vírus B2/ Кокссаки вирус (С-вирус) В2

1174 Coxsackievirus B3/ Coxsackie virus B3/ vírus Coxsackie B3 / Ιός της ψευδοπολιομυελίτιδας B3 / Wirus Coxsackie B3 / Virus Coxsackie B3 / virus coxsasckie B3 / Coxsackie vírus B3/ Кокссаки вирус (С-вирус) В3

1175 Coxsackievirus B4/ Coxsackie virus B4/ vírus Coxsackie B4 / Ιός της ψευδοπολιομυελίτιδας B4 / Wirus Coxsackie B4 / Virus Coxsackie B4 / virus coxsasckie B4 / Coxsackie vírus B4/ Кокссаки вирус (С-вирус) В4

1176 Coxsackievirus B5/ Coxsackie virus B5/ vírus Coxsackie B5 / Ιός της ψευδοπολιομυελίτιδας B5 / Wirus Coxsackie B5 / Virus Coxsackie B5 / virus coxsasckie B5 / Coxsackie vírus B5/ Кокссаки вирус (С-вирус) В5

1177 Coxsackievirus B6/ Coxsackie virus B6/ vírus Coxsackie B6 / Ιός της ψευδοπολιομυελίτιδας B6 / Wirus Coxsackie B6 / Virus Coxsackie B6 / virus coxsasckie B6 / Coxsackie vírus B6/ Кокссаки вирус (С-вирус) В6

2179 Coxsackievirus B1-B6/ Coxsackie virus B1-B6/ vírus Coxsackie B1-B6 / Ιός της ψευδοπολιομυελίτιδας B1-B6 / Wirusy Coxsackie B1-B6 / Virus Coxsackie B1-B6 / virus coxsasckie B1-B6 / Coxsackie vírus B1-B6/ Кокссаки вирус (С-вирус) В1-В6

1178 Coxsackievirus Pool (A9, B1-B6)/ Coxsackie, virus Pool (A9, B1 - 6) / Coxsackie-virus Pool (A9, B1 - 6) / Agrupamento de vírus Coxsackie (A9, B1 - 6) / Ιός της ψευδοπολιομυελίτιδας Pool (A9, B1 - B6) / Pula wirusów Coxsackie (A9, B1 - B6) / pool vírusov Coxsackie (A9, B1-B6) / Skupina virusov Coxsackie (A9, B1-B6) / skupina virů coxsackie (A9, B1 – 6) / Coxsackie vírus (A9, B1-B6) keverék/ совокупность Кокссаки вирусов (С-вирусов) (А9, В1-В6)

1130 * Cytomegalovirus / Cytomegalo, virus / Cytomegalo-virus / Citomegalovírus / Κυτταρομεγαλοιός / cytomegalovírus / Citomegalovirus/ cytomegalovirus/ цитомегаловирус

1132 Epstein-Barr Virus / Epstein-Barr, Virus / Epstein-Barr-Virus / Vírus Epstein-Barr / Ιός Epstein - Barr / Wirus Epsteina i Barra / vírus Epsteina a Barrovej / Virus Epstein-Barr / virus Epsteina a Barrové / Epstein-Barr Vírus / вирус Эпштейна-Барра

1180 Echovirus Pool (4, 6, 9, 14, 24, 30) / Echo, virus-Pool (4, 6, 9, 14, 24, 30) / Echo-virus-Pool (4, 6, 9, 14, 24, 30) / Agrupamento de Echovírus (4, 6, 9, 14, 24, 30) / Εντερικός ιός Pool (4, 6, 9, 14, 24, 30) / Pula wirusów ECHO (4, 6, 9, 14, 24, 30) / pool echovírusov (4, 6, 9, 14, 24, 30) / Skupina ehovirusov (4, 6, 9, 14, 24, 30) /skupina echovirů (4, 6, 9, 14, 24, 30) / Echovírus (4, 6, 9, 14, 24, 30) keverék / совокупность эховирусов (4, 6, 9, 14, 24, 30)

1192 FSME Virus/TBE Virus / FSME, virus/TBE, virus / FSME-virus/TBE-virus / Vírus-TBE / Ιός της κροτωνογενούς εγκεφαλίτιδας (εαρινή-καλοκαιρινή μηνιγγοεγκεφαλίτιδα - FSME) / Wirus kleszczowego zapalenia mózgu (FSME) / vírus FSME (vírus kliešťovej meningoencefalitídy) /vírus TBE/ Virus klopnega encefalitisa (TBE) / FSME(TBE) virus / Kullancsencephalitis vírus / вирус весенне-летнего менингоэнцефалита FSME(TBE)

1154 Herpes Simplex Virus 1/2 / Herpes Simplex, Virus 1/2 / Herpes-Simplex-Virus 1/2 / Vírus Herpes-Simplex 1/2 / Ιός του απλού έρπη ½ / Wirus opryszczki pospolitej 1/2 / vírus Herpex simplex 1/2/ Virus Herpes Simplex 1/2 / virus herpes simplex 1/2 / Herpes Simplex Vírus ½ / вирус пузырькового герпеса 1/2

1112 Influenza A Virus / Influenza, virus A / Influenza-virus A / Vírus Influenza A / Influensavirus A / Influenzavirus A / Ιός της γρίπης A / Wirus grypy typu A / vírus chrípky typu A / Virus influence A/ virus chřipky A / Influenza A vírus / вирус гриппа A

1113 Influenza B Virus / Influenza, virus B / Influenza-virus B / Vírus Influenza B / Influensavirus B / Influenzavirus B / Ιός της γρίπης B / Wirus grypy typu B / vírus chrípky typu B / Virus influence B/ virus chřipky B / Influenza B vírus / вирус гриппа B

1114 Influenza Virus Pool / Influenza, virus-Pool / Influenza-virus-Pool / Agrupamento de vírus Influenza / Influensavirus Pool / Influenzavirus Pool / Ιός της γρίπης Pool / Pula wirusów grypy / pool vírusov chrípky / Skupina virusov influence/ skupina virů chřipky / Influenza vírus keverék / совокупность вирусов гриппа

1224 Legionella pneumophila / Legionella Pneumophila / πνευμόφιλο λεγιονέλλα / Legionella pneumophila (болезнь легионеров)

9120 Leptospira biflexa / Λεπτόσπειρα biflexa/ лептоспиры biflexa

9090 Leptospira canicola / Λεπτόσπειρα canicola/ лептоспиры canicola

9070 Leptospira grippotyphosa / Λεπτόσπειρα grippotyphosa / лептоспиры гриппо-тифозные grippotyphosa

9080 Leptospira icterohaemorrahagiae / Λεπτόσπειρα icterohaemorrahagiae / лептоспиры icterohaemorrahagiae

9100 Leptospira pomona / Λεπτόσπειρα pomona/ лептоспиры pomona

9110 Leptospira sejroe / Λεπτόσπειρα sejroe/ лептоспиры sejroe

9071 Leptospira / Λεπτόσπειρα / лептоспиры

9072 Leptospira / Λεπτόσπειρα / лептоспиры

1234 Listeria monocytogenes/ Λιστέρια monocytogenes / листерия моноцитогенная

1190 Masern Virus / Measles Virus / Virus de Rougeole / Masern, virus / Vírus de Sarampo / Mässlingvirus / Maeslingevirus / Ιός της ιλαράς / Wirus odry / vírus osýpok/ Virus ošpic / virus spalniček / Kanyaró vírus / вирус кори

1125 Mumps Virus / Parotitis virus / Virus des Oreillons / Parotitis, virus / Vírus de parotidite / påssjukevirus / fåresyge virus / Παρωτίτιδα / Wirus zapalenia przyusznic / vírus mumpsu/ Virus mumpsa / virus příušnic / Mumpsz vírus / вирус эпидемического паратита

1111 Mycoplasma pneumoniae / Μυκόπλασμα πνευμόνων / микоплазменная пневмония

1253 Neisseria gonorrhoeae / Ναϊσσέρια η γονοκοκκική / гонореи Нейссера

1116 Parainfluenza Virus 1 / Parainfluenza, virus 1 / Parainfluenza-virus 1 / Vírus Parainfluenza 1 / Parainfluensvirus 1 / Ιός της παρα-γρίπης 1 / Wirus grypy rzekomej 1 / vírus parainfluenzy 1/ Virus parainfluence 1 / viry parainfluenzy 1 / Parainfluenza vírus 1 / вирус 1 парагриппозного заболевания

1117 Parainfluenza Virus 2 / Parainfluenza, virus 2 / Parainfluenza-virus 2 / Vírus Parainfluenza 2 / Parainfluensvirus 2 / Ιός της παρα-γρίπης 2 / Wirus grypy rzekomej 2 / vírus parainfluenzy 2/ Virus parainfluence 2 / viry parainfluenzy 2 / Parainfluenza vírus 2 / вирус 2 парагриппозного заболевания

1118 Parainfluenza Virus 3 / Parainfluenza, virus 3 / Parainfluenza-virus 3 / Vírus Parainfluenza 3 / Parainfluensvirus 3 / Ιός της παρα-γρίπης 3 / Wirus grypy rzekomej 3 / vírus parainfluenzy 3/ Virus parainfluence 3 / viry parainfluenzy 3 / Parainfluenza vírus 3 / вирус 3 парагриппозного заболевания

1115 Parainfluenza Virus Pool (1, 2, 3) / Parainfluenza, virus Pool (1, 2, 3) / Parainfluenza-virus Pool (1, 2, 3) / Agrupamento de vírus Parainfluenza 1, 2, 3 / Parainfluensavirus Pool (1, 2, 3) / Ιός της παρα-γρίπης Pool (1, 2, 3) / Pula wirusów grypy rzekomej (1, 2, 3) / pool vírusov parainfluenzy (1,2,3) / Skupina virusov parainfluence (1, 2, 3) / skupina virů parainfluenzy (1, 2, 3) / Parainfluenza vírus (1, 2, 3) keverék / совокупность вирусов парагриппозного заболевания (1, 2, 3)

1126 Picorna Virus Pool / Picorna, Virus-Pool / Picorna-Virus-Pool / Agrupamento de Vírus Picorna /Ιός Picorna Pool / Pula pikornawirusów / pool pikornavírusov/ Skupina virusov Picorna / skupina picornaviry / Picorna vírus keverék / совокупность пикорнавирусов (маленьких вирусов)

1127 Poliovirus / Polio, Virus / Polio-Virus /Vírus da Polio / Ιός Polio / Wirus choroby Heinego i Medina / vírus obrny/ Poliovirus / poliovirus / Poliovírus / полиовирус

1124 Resp. Syncytial Virus (RSV) / Resp.-Syncytial, Virus (RSV) / Resp.-Syncytial-Virus (RSV) / Vírus Respiratório Sincicial (VRS) / Respiratorisk Syncytial Virus (RSV) / Αναπνευστικός συγκυτιακός ιός (RSV) / Wirus zespólni układu oddechowego (RSV) / respiračný syncyciálny vírus (RSV) / Respiratorni sincicjski virus (RSV) / respirační syncyciální virus (RSV) / RS-вирус

1193 Rotavirus / Rota, Virus / Rota-Virus / Rotavírus / Ιός Rota / Rotawirus / rotavírus/ / rotavirus / ротавирус

1331 * Toxoplasma gondii / Τοξόπλασμα gondii / токсоплазма gondii

1191 Varicella-Zoster Virus (VZV) / Varicella-Zoster, Virus (VZV) / Varicella-Zoster-Virus (VZV) / Vírus Varicella-Zoster (VVZ) / Ιός ανεμευλογιάς-έρπητος ζωστήρος / Wirus ospy wietrznej i półpaśca / vírus Varicella zoster (VZV) / Virus Varicella-Zoster (VZV) /virus varicella-zoster (VZV) / вирус ветряной оспы (VZV)

1203 Yersinia enterocolitica O3 / Πανώλη enterocolitica O3 / Йерсиния interocolitica 03

1209 Yersinia enterocolitica O9 / Πανώλη enterocolitica O9 / Йерсиния interocolitica 09

1201 Yersinia pseudotuberculosis / Πανώλη pseudotuberculosis / Йерсиния псевдотуберкулёзная

CE

* 0197

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