ISO 9001: 2008
EN ISO 13485: 2012

Performance Evaluations

DENGUCHECK®-WB

Rapid test for the detection of antibodies to Dengue virus

Tulip Group

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Rapid test for the detection of antibodies to Dengue virus

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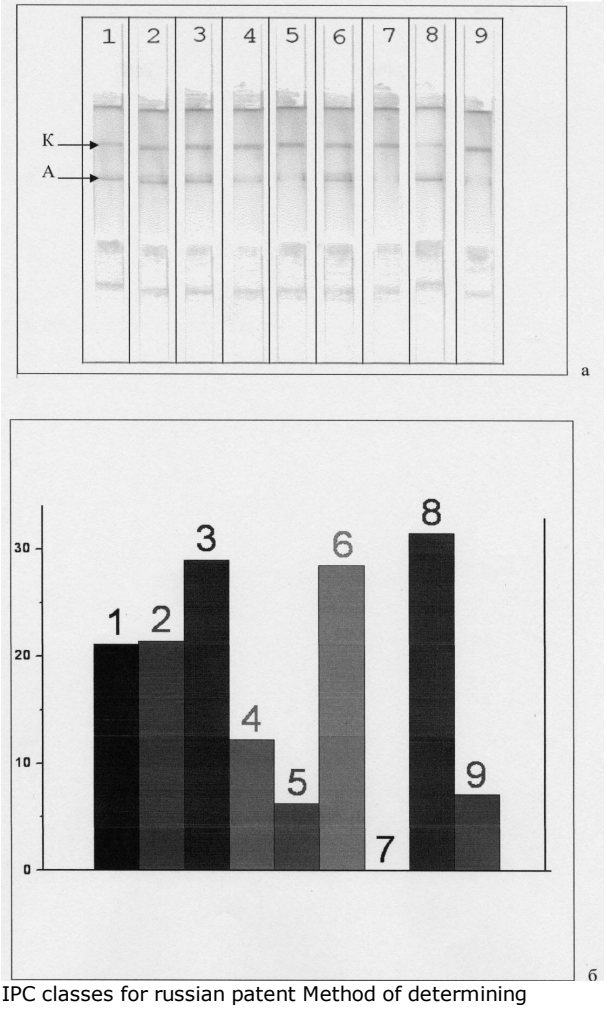
Method of determining antibodies to tuberculosis germ



IPC classes for russian patent Method of determining antibodies to tuberculosis germ (RU 2395092):

G01N33/53 - Immunoassay; Biospecific binding assay; Materials therefor (medicinal preparations containing antigens or antibodies A61K; haptens in general, see the relevant places in class C07; peptides, e.g. proteins, in general C07K)

Another patents in same IPC classes:

Method of forecasting progress of restenosis after coronary arteries stenting with stents without drug coating / 2395091

To predict progress of restenosis after coronary arteries stenting with stents without drug coating genotypes of polymorphisms Glu298Asp of gene endothelial nitric oxide synthase (eNOS) and gene Pro198Leu of glutathione peroxidase-1 (GPx-1) are determined in patient. While identifying only alleles Glu298 and Pro198 of polymorphisms Glu298Asp of gene eNOS and Pro198Leu of gene GPx-1 in patient, low risk of restenosis is predicted. If allele 298Asp of polymorphism Glu298Asp of gene eNOS or allele 198Leu of polymorphism Pro198Leu of gene GPx-1 are detected in genotype, average risk of restenosis is predicted. If presence of both allele 298Asp of polymorphism Glu298Asp of gene eNOS and allele 198Leu of polymorphism Pro198Leu of gene GPx-1 is detected, high risk of restenosis is predicted.

Diagnostic technique for degree of activity of antral helicobacter-associated gastritis in patients with bronchial asthma / 2394499

Invention refers to medicine, particularly gastroenterology, specifically to diagnostic techniques for the degree of activity of antral helicobacter-associated gastritis in the patients with bronchial asthma. Blood serum of the patients with bronchial asthma is analysed for the concentration of Helicobacter pylori (Hp) antibodies class IgG by solid-phase immunoassay. The found concentration of Hp antibodies is analysed depending on the degree of inflammation of mucous coat of stomach. And if the concentration of Hp antibodies is less than 77 EIU, zero activity

FIELD: medicine.

SUBSTANCE: sample is in contact with membrane testing strip and initiates mo reagents along membrane testing strip which are contained in sample or laid or membrane. For detecting antibodies two antigenic reagents are used - immobili analytical zone of the testing strip Mycobacterium tuberculosis antigen and an a conjugated with colloidal gold particles. Due to presence of antibodies in at leas binding sites in contact of the test strip with the sample in analytical area forma immune complexes takes place which consist of immobilised on membrane ant contained in the sample of antibodies to the antigen Mycobacterium tuberculosi conjugated antigen Mycobacterium tuberculosis with particles of colloidal gold. detected visually or using an optical detector.

EFFECT: method enables to provide a high surface density of binding sites of an antigens of Mycobacterium tuberculosis on colloidal gold particles and thus a m staining of analytical zone of the testing strip.

2 ex, 1 dwg

The invention relates to immunology and medical diagnosis and is a way for the antibodies to Mycobacterium tuberculosis based on conducting lateral flow analys

One of the important tasks for which demand a definition of specific antibodies, is of tuberculosis (Cegielski JP, Chin D.P., Espinal M.A., Frieden Tr, Rodriquez R. Cru Weil D.E., Zaieskis R., Raviglione M.C. Infect. Dis. Clin. North. Am. 2002; 16 (I): Brewer, Heymann S.J. Arch. Med. Res. 2005; 36 (6): 617-621; R.P. Tripathi, N. Dwivedi, V.K. Tiwari Med. Res. Rev. 2005; 25 (1):. 93-131; Nair N., Cooreman Dis. 2006; 38 (3):. 185-190). The level of adult mortality tuberculosis ranks firs infectious diseases. Because TB is often first diagnosed in advanced and severe forms are very common cases naturalnych forms of the disease, leading to death of intensive spread of tuberculosis increases the importance of identifying patient epidemiological danger to others. Correct and timely diagnosis allows to identify early stages of the disease, and in time she started chemotherapy prevents the progressive forms of intensive production of mycobacteria.

The presence of serum antibodies specific to the pathogen of certain diseases, E criterion, allowing with high accuracy corresponding to diagnose infectious diseas advantage of this approach compared to the direct detection and identification of agent is a certainty when selecting test samples (serum, whereas the pathogen of infection is predominantly localized in different organs and tissues), and rapid sufficiently high level of antibodies induced by contact with antigen, while antiger require a fairly long stage rearing until they reach detectable concentrations. Alth actively used as microbiological and immunological methods in the diagnosis of i diseases, for mass primary screening optimal immunological detection in serum antibodies (serodiagnosis), which can be implemented with high expressnet and Special interest serodiagnostics approaches in cases where due to the nature of t microorganisms obtaining results of microbiological testing may require consider

Since the causative agent, Mycobacterium tberculosis, characterized by an extre growth rate, microbiological diagnosis may require up to 30-40 days to obtain re whereas symptomatic diagnosis, especially in the early stages, is extremely diffi the high degree of variability of the etiology of the disease. These reasons deter interest in serodiagnostic tuberculosis.

Thanks expressnet, sufficiently high sensitivity and specificity of serological tests for mass screening. In addition, the humoral immune response reflects an active process, and therefore the results of immunochemical testing accurately reflect cases, discriminating them from bacteria carrier.

Immunochemical analysis can be implemented in a variety of formats. However, surveys of primary importance are the speed and performance test, this situatio advantages immunochromatographic analysis, for which all the necessary reager on the membrane components of the test strip and its contact with the test brea initiates the movement of the front fluid membranes, the occurrence of specific formation of immune complexes that by including in their composition colored m detected visually or by an optical detector.

In relation to serodiagnostic (definition of antibodies specific to a particular antig antigens) General scheme chromatography is as follows.

Sample potentially containing specific antibody, under the action of capillary forc

of antral helicobacter-associated gastritis is diagnosed; the concentration of Hp antibodies being 78-184 EIU show the first degree, while the values equal to 185-500 EIU ensure to diagnose the second degree, and if the concentration of Hp antibodies exceeds 500 EIU, the third degree of activity of antral helicobacter-associated gastritis is diagnosed.

Diagnostic technique for primary biliary cirrhosis / 2394498

Invention refers to clinical medicine and gastroenterology and can be used as a diagnostic technique for primary biliary cirrhosis. The method provides higher diagnostic accuracy for primary biliary cirrhosis. It involves an immunoassay to determine IgA, IgG, IgE and IgM antibodies concentrations, and in decreasing IgE to 5-30 IU/ml and in increasing IgA to 310 IU/ml and more, IgG to 350 IU/ml and more and IgM to 355 IU/ml and more, primary biliary cirrhosis is diagnosed.

Syphilis diagnostic technique by simultaneous detection of reaginic and treponema-specific t pallidum antibodies on microscope aldehyde slides / 2394496

Invention refers to medicine, particularly to infectious diseases. It involves simultaneous analysis of blood serum for reaginic and treponema-specific antibodies to cardiolipin antigen and recombinant T pallidum protein complex with molecular weight 15, 17, 39, 41, 42, 44.5, 47 kDa, immobilised on microscope aldehyde slides to detect antibodies by a conjugate solution containing Cy5 phosphor tagged human IgG antibodies and Cy3 phosphor tagged human IgM antibodies; slide scanning in a multichannel biochip scanner; automatic data analysis in a program used to convert fluorescent signals to digital positiveness coefficients; and qualitative presentation. Reaginic and treponema-specific antibodies found in a sample indicate syphilis, while no reaginic and treponema-specific antibodies found in the sample shows the absence of syphilis in a patient.

Method for prediction of risk of early fetal loss in ivf induced pregnancies / 2394495

Invention refers to medicine, particularly to new reproductive technologies in obstetrics. It involves immune-enzyme analysis of a biological fluid. In women with induced pregnancy, the follicular fluid is analysed for specific immunocomplexes, namely alpha 2-macroglobulin-immunoglobulin G (MG-IgG) and lactoferrin immunoglobulin G (LF-IgG), and if MG-IgG is less than 0.6 mcg/ml, and LF-IgG is less than 0.8 mcg/ml, high probability of early miscarriage is predicted.

Method of forecasting of respiration disturbance in sleep in obese children / 2394241

Daily urine samples are analysed, rate of main metabolite of melatonin, 6-sulphatoxymelatonin is defined in it with the method of enzyme immunodetection, and at the value of the least of 28.97 ng/ml and above existence of respiration disturbance during sleep, including obstructive sleep apnea, is forecasted.

$$ИИА = \frac{ЛК \times МС - ФАД \times ФИЗ \times ДФ - РБТ.ЗФа}{АОК \times МТ}$$

Method of postmedicamentous immunodeficiency assessment / 2393480

There is offered a method of postmedicamentous immunodeficiency assessment by single intraperitoneal introduction to experimental rats of an injection of 0.5 ml of a cytostatic agent - Cyclophosphan in dosage 4 mg/100 g of body weight; two months later there are evaluated weights of spleen (WS) and thymus (WT), leukocyte (LK) and blood lymphocyte (LP), blast-transformation reaction (BTR), spleen antibody-forming cells (AFC), leukocyte phagocytic activity (LPA) and phagocytic index (LPI). The method is characterised by the fact that an immune activity index (IAI) is calculated by formula , and if the IAI is less than 580 units, development of prolonged postmedicamentous immunodeficiency is stated.

Method of assessing clinical course of chronic glomerulonephritis / 2393479

To assess the clinical course of chronic glomerulonephritis, DNA is recovered from peripheral venous blood of patients with chronic glomerulonephritis. If 4257AA genotype of IL-13 gene is observed, probable formation of severe arterial hypertension and high level of average daily proteinuria during disease are concluded. If detecting 4257A allele of IL-13 gene, the course of chronic glomerulonephritis with moderate proteinuria is probable.

$$Fmo = \text{Ангиа} - \frac{ИЛ - ИЛС \cdot Ткоп}{ЛМФС \cdot Ткоп + ЭФр \cdot Ткоп + 1}$$

Method for assessment of vascular wall adaptation to functional load / 2393477

Before and after local ischemia, diametre of the brachial artery,

along the test strip. However, it first interacts with colored particles (colloidal gol
token), on which surface adsorbed component capable of binding with antibodies
component is chosen individule antibodies (immunoglobulins isolated from the se
animal immunized with a preparation of human immunoglobulins or other body fo
serodiagnosis). Then the front of the liquid overcomes analytical (test) zone, whi
portion of a membrane with immobilized antigen (native or specially modified for
sorption). The degree of binding of the marker to the immobilized antigen and, ac
intensity of staining of the membrane is determined by the concentration of spec
the sample.

To check the quality of reagents and preserve the functionality of the test system
control area in which the component adsorbed on the painted part of the e, assoc
corresponding immobilized on the membrane reagent.

The effectiveness of the immunochromatographic test system as a diagnostic too
depends on what immunoreagent it used and what are the complexes they form.
the choice of antigen and format of analysis.

It is known that in relation to the diagnosis of tuberculosis does not exist a unive
presence in the sample of antibodies which would allow to conclude about the dis
all cases. Used for serodiagnosis of tuberculosis antigens provide detection in 50
and a reliable description requires a combination of test results using several ant
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Steingart K.R., Henry m, Laal s, Hopewell PC, Ramsay a, Menzies D., Cunninghan
Pai M. Thorax. 2007; 62 (10): 911-918; Teixeira H.C., C. Abramo, M.E. Munk J.
2007; 33 (3): 323-334).

Traditional equipment immunochromatographic serodiagnostics systems involves
conjugate is in colloidal gold with antivirovym antibodies. Below is the informatio
method, implemented in the test system TB-Check-1" firm "Vedalab" (France) -
http://www.sanitamedikal.com/Assets/MD_220002_m3_TB_1408_c.pdf. This r
detection of antibodies to Mycobacterium tuberculosis is considered in this applic
prototype:

The method is based on a combination of antibodies to human immunoglobulins
the Chromogen, and purified BCG protein... With the passage of the sample throu
adsorption zone of the test device to the conjugate containing the labeled antibo
forming a complex antigen-antibody". This complex interacts with highly purified
the test zone of the device, and if the concentration of specific IgG antibodies to
tuberculosis more than 350 u/ml, forms the painted strip. At low antibody concer
band in the test zone is not formed. Unbound conjugate interacts with the reager
zone of the test device, forming a colored stripe that indicates the proper conduc

However, a significant drawback of this technique is to associate the token with a
immunoglobulins present in the sample, whereas the interaction with the antigen
zone and the formation of a detectable colored strips provide only antibodies aga
consistent antigen PM tuberculosis. Thus, from the point of view of the formation
complex binding with colored marker main number (more than 90%) of the mole
immunoglobulins is the parasitic process. Only a small fraction immobilized on co
of the test sample can interact with the immobilized antigen that running a non-e
of immunochemical interactions leads to weak brightness of the formed colored s
decrease the reliability of the diagnosis.

To overcome the aforementioned limitation in this application proposed immunoc
analysis of antibodies to Mycobacterium tuberculosis, in which there is no binding
painted mark immunoglobulins, are not able to interact with immobilized in the a
the antigen. This goal provides the use of conjugates of colloidal gold with the sa
antigens) M. tuberculosis, which are immobilized in the analytical zone. Due to th
antibodies to several (at least two) valences with identical specificity, the format
complexes, including immobilized, and conjugated with colloidal gold antigen. The
gold conjugate to the antigen, but not with antibodies is a distinctive feature of th
the Toda from other currently known systems immunochromatographic serodiag
tuberculosis.

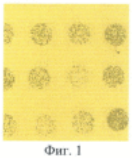
Note that this complete set of the test system allows you to identify specific imm
all classes, which leads to additional reduction in the threshold of detection. Also
sample-specific antibodies in the interaction with colloidal conjugate potentially c
aggregates, including several of colloidal particles. Linking in the analytical zone
increases the sensitivity of detection using this test system. These effects have b
used for immunoassay, in particular, in immunoagglutination system determinati
protein CRP Direct Latex" company "Orgenics" (France), lateral flow systems ser
Dengue fever "Dengucheck-WB" company "Zephyr Biomedicals" (India) and bovi
(SKM, A.Alhassan, R.A.Verdida, N.Yokoyama, X.Xuan, K.Fujisaki, S.-I.Kawazu, I.I
Parasitol. 2007; 148: 137-143)).

The proposed approach for serodiagnosis of tuberculosis was implemented by ap
two antigens of M. tuberculosis: antigen 16 kDa (Hsp16.3, Rv2031c) and 38 kDa
antigen 5, PhoS, Rv0934). Described below is the method of obtaining the test s
conducting lateral flow analysis, and the results obtained.

Example 1. The creation of immunochromatographic tests for the serodiagnosis o
using antigen 16 kDa

For the formation of the test system used a set of membranes "mdi Easypack" c
"Advanced Microdevices" (India), including a working membrane CNPC-SN12 L2-
15 μm), the substrate for the conjugated PT-R5, the membrane for application o

blood nitrite level, endothelin concentration and Willebrand factor are evaluated. The accommodation of vascular wall endotheliocytes to ischemia is calculated by formula that describes a coefficient K_{en}. If K_{en} is "0" or less, the adaptation of the vascular wall is considered as preserved; K_{en} within "0" to 0.2 inclusive shows the moderately lowered adaptation of the vascular wall, while the K_{en} value exceeding 0.2 indicates the considerably lowered adaptation of the vascular wall. The coefficient K_{en} may be used for a quantitative estimation of specific features of cell functional adaptation to ischemic factors, both in norm, and in cardiovascular pathology.


Фиг. 1

Method for combined immunobiological analysis of cells using biochip / 2393216

Method for combined immunobiological analysis of cells using a biochip involves incubation of the biochip which contains immobilised antibodies, with suspension of cells, washing the biochip from non-bonded cells, determination of coexpression of antigens on the bonded cells. The obtained result is assessed by determining presence of bonded cells in the region of the stain of the biochip and bonding density of cells and interpretation of the obtained result. Coexpression of antigens on cells bonded to the biochip is determined by carrying out one or more immunocytochemical reactions. When reading out the result, morphological analysis of cells bonded to the biochip is also carried out and presence and character of colouring of cells and their components with the reaction product are determined.

$ПК = \frac{содержание\ IL-8}{содержание\ IL-1\beta}$ **Method for predicting the character of bacterial keratitis flow** / 2245553

In lacrimal liquid one should detect the content of interleukin 8 (IL-8) and that of interleukin 1 beta (IL-1β) to calculate prognostic coefficient (PC) due to dividing the first value by the second one by the following formula: At PC value being below 10.0 one should predict favorable disease flow, and at PC value being above 10.0 - unfavorable flow.

Method for determination of anti-lactoferrin activity in microorganisms / 2245923

Method involves growing microorganism culture to be studied in solid nutrient medium followed by preparing microbial suspension and its incubation in the presence of lactoferrin. Control sample is prepared in parallel series. Control and experimental samples are incubated, supernatant is removed from bacterial cells and lactoferrin concentration is determined in supernatant of experimental and control sample by immunoenzyme analysis. Then anti-lactoferrin activity is calculated by difference of concentrations of residual lactoferrin in experimental and control samples. This method provides enhancing the sensitivity and precision in carrying out the quantitative evaluation of anti-lactoferrin activity in broad spectrum of microorganisms that is urgent in diagnosis and prognosis of diseases with bacterial etiology. Invention can be used in determination of persistent indices of microorganisms for assay of their etiological significance in pathological processes.

Nutrient medium for accumulation of cell sample for following cytological and/or immunocytochemical analysis / 2246110

Invention relates to nutrient medium used for accumulation of cells for the following cytological and/or immunocytochemical analysis carrying out. Invention relates to medium containing salts NaCl, KCl, anhydrous $CaCl_2$, $MgSO_4$ x 6 H_2O, $MgCl_2$ x 6 H_2O, Na_2HPO_4 x 2 H_2O, $KHPO_4$, $NaHCO_3$, and also glucose and Henx's solution, 10% albumin solution and polyglucin taken in the ratio 1:1:1. Invention provides enhancing the preservation of cells.

Method for predicting lethal result of large-focal myocardial infarction / 2246114

In peripheral blood one should detect the level of CD95(+) and CD16(+) neutrophilic granulocytes and at combination of increased level of CD95(+) neutrophilic granulocytes by 4 times and more and CD16(+) neutrophilic granulocytes by 0.6 times against the norm with ECG signs of myocardial infarction one should predict lethal result of large-focal myocardial infarction.

GFB-R4, adsorbing membrane AR 045 and laminating a protective film MT-1. The membranes were applied following reagents.

1. Recombinant antigen 16 kDa M. tuberculosis (Rv2031c), the company "Arista (USA), cat. No. AGMTB-0210.

2. Conjugate of colloidal gold with an average particle diameter of 30 nm and rec antigen 16 kDa M. tuberculosis.

3. Monoclonal antibodies NTM against the recombinant antigen 16 kDa M. tuberc molecular diagnostics and therapy, Moscow (Russia).

For the formation of the analytical zone of the used antigen 16 kDa, control area against the antigen of 16 kDa. 1 cm strip was applied 2 μl of the antigen solutior 50 mm phosphate buffer, pH 7.4) and 2 μl of a solution of antibody (0.5 mg/ml i buffer). The colloidal gold conjugate to the antigen 16 kDa was applied in a diluti to D_{520}=2,0, volume 8 ál of 1 cm strips. For applying reagents used dispenser "I company "Imagene Technology (USA). Leaves membranes coated with immunor individual test strips with a width of 4 mm

Immunochromatographic analysis was carried out at room temperature. Those w was immersed in the sample for 1 min in a vertical position, and then removed a horizontal surface. Detection of binding of colloidal gold was carried out in 10 mir receiving a digital image of the test strip with the help of a scanner. A positive re considered reliable availability of coloured stripes in the analytical zone of any int

The results of testing a sample of 9 samples of blood sera of tuberculosis patient drawing. In 8 out of 9 characterized patients the use of this method allowed to id presence of specific antibodies to the causative agent of tuberculosis.

Example 2. The creation of immunochromatographic tests for the serodiagnosis c using the 38 kDa antigen

The implementation is identical to that described in example 1 method immunoc analysis using recombinant antigen 38 kDa M. tuberculosis (Rv0934) firm "Arista Inc." (USA), cat. No. AGMTB-0220 and monoclonal antibodies NTM against him c molecular diagnostics and therapy, Moscow (Russia), allows to detect antibodies characterized serum samples of patients ' blood.

A brief description of the drawings.

The drawing shows: (a) external view of the immunochromatographic test strips of antibodies to Mycobacterium tuberculosis using antigen 16 kDa M. tuberculosi the economic area, To control area); (b) the graph coloring analytical areas of te analysis of the sera of 9 patients with tuberculosis. The data obtained through th digital images of test strips using TotalLab v2.01. Y-axis delayed relative staining arbitrary units.

The method of detection of antibodies to Mycobacterium tuberculosis based on c flow analysis, in which the membrane test strip are formed complexes, compose the antigen or antigens of Mycobacterium tuberculosis that are specific to them t contained in the test liquid sample, and the particles of colloidal gold, tying them zone of the test strip is recorded visually or by an optical detector, characterized achieve a more intense staining of the analytical zone of the test strip and reliabl the results of the analysis of molecules of the antigen or antigens of Mycobacteri are immobilized in the analytical zone of the test strip, and on the surface of coll resulting in contact of the test strip with the liquid sample and the subsequent m reagents on the membrane of the test strip in the analytical zone is the formatio complexes consisting of and is mobilized on the membrane of antigen molecules, contained in the sample antibodies to the antigen or antigens of Mycobacterium t the conjugate of the antigen or antigens of Mycobacterium tuberculosis with part gold.

Зависимость результата ИФА с целью обнаружения антител к антигенам лямблий от коэффициента концентрации антител и титра антител

Коэффициент концентрации антител	Титр антител	Результат/интерпретация
0 - 5	менее 1 : 100	отрицательный
6 - 10	1 : 100	сомнительный
11 - 50	1 : 200	• Положительный (при наличии симптомов заболевания и эозинофилии), • Носительство (при их отсутствии)
51 - 100	1 : 400	• Положительный (при наличии симптомов заболевания и эозинофилии), • Носительство (при их отсутствии)
101 - 135	1 : 800	положительный
136 - 170	1 : 1600	положительный
171 - 205	1 : 3200	положительный

Method for predicting lambliasis and its flow / 2246115

One should carry out immunoenzymatic assay to detect diagnostic optic density and that of labeled immune complex in a plot's hole with tested serum measured in conventional units at wave length being 492 nm. One should calculate coefficient of antibodies concentration measured in conventional units by the following formula: CAC = (Odtsh - Odd) x 100, where CAC - coefficient of antibodies concentration, Odtsh - optic density of the hole with tested serum, Odd - diagnostic value of optic density, 100 - coefficient of serumal dilution. By CAC value one should detect the titer of antibodies to Lamblia intestinalis antigens to interpret results of the trial. The method enables to study the dynamics of disease flow.

$Д = \frac{A - B}{B} 100\%$ **Method for detecting adhesive properties of blood leukocytes** / 2246728

The present innovation deals with studying and treating diseases of inflammatory, autoimmune and degenerative genesis. One should perform sampling of heparinized blood followed by its sedimentation to obtain blood plasma with leukocytes and centrifuging to isolate the latter which are washed against erythrocytic and serumal admixtures, and, also, it deals with calculating the number of cells in samples out of leukocytic suspension after incubation (B) for 1.5 h at 37 C in holes of plastic microplotting board, out of leukocytic suspension one should additionally prepare two samples, one should be applied to calculate total number of leukocytes before incubation (A), the second sample undergoes incubation at the same mode at addition of autoserum to calculate the number of cells remained after incubation (C). One should state upon adhesive properties of leukocytes by the index of spontaneous adhesion (D), where D=(A-B)/B·100%, and effect for enhanced cellular adhesion under the impact of autoserum should be detected by the value of K=(B-C)/C·100% at K ≥ 30%, where B - C - the number of cells undergone additional adhesion after addition of autoserum. The present innovation widens functional possibilities of the suggested method due to obtaining additional values depicting adhesive properties of blood leukocytes.

Method for detecting functional activity of cytokins that suppress t-lymphocytes in neonatals / 2246732

One should carry out reaction of blast-transformation, detect proliferation of T-lymphocytes activated with antibodies to CD3 in the presence of interleukin-7 (ACT IL-7) and in the presence of interleukin-7 and dexametazone (ACT IL-7 D), calculate the index for dexametazone action as the ratio of ACT IL-7 to ACT IL-7 D, moreover, the value of dexametazone action index being above 1.2 indicates increased production of cytokins that suppress T-lymphocytes in neonatals. The method enables to detect functional defect of immune system that characterizes neonatal period.

Method for predicting pulmonary hypertension / 2247380

Method involves measuring forced exhalation volume per 1 s (FEV_1) in l, full right ventricle evacuation time (RVE) in ms and angiotensin II value (AII) in ng/l. Discriminant relationship is built as $D=0.504 \cdot RVE+3.038 \cdot FEV_1 - 2.0 \cdot AII$. D being less than 83.88, pulmonary hypertension occurrence is predicted within 1 year. D being equal to or greater than 83.88, no pulmonary hypertension is predicted to occur.

Method for assay of immune status disorder / 2247381

Method involves determination of heterophilic antibodies in human serum blood by the Paul-Bunnel's method relatively the level of circulating immune complexes, complement-activating properties of heterophilic antibodies by incubation of standardized ram erythrocytes with 0.8% serum for 30 ± 5 min and the following measurement of the erythrocytes lysis degree. The measurement of the effector function coefficient of heterophilic antibodies is carried out by the complement system $K_{eff.f.h.a.-c.s.}$ by the formula: $K_{eff.f.h.a.-c.s.} = Y/T_{g.a.}$ wherein Y means a lysis degree, %; $T_{g.a.}$ means a reverse titer of heterophilic antibodies to ram erythrocytes. The damage assay is carried out by comparison of the immune status with

the relative level of circulating immune complexes in serum. Method provides detection of preclinic from of immunodeficiency and autoimmune diseases that opens the possibility for their prophylaxis at most early stages of development. Invention can be used for assay of damage in the immune status in human serum blood.

Method for predicting ophthalmoherpes / 2247382

Method involves concurrently examining anti-inflammatory IL-4 level in blood serum and lacrimal fluid. The value being within the limits of 60-70 pg/l in blood serum and 5-15 pg/l in lacrimal fluid, disease prognosis is considered to be unfavorable. The IL-4 concentration being within the limits of 90-100 pg/l in blood serum and 20-30 pg/l in lacrimal fluid, disease prognosis is considered to be favorable.

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