



IGFBP-2 Elisa

KAPME05



IGFBP-2-ELISA

Enzyme Immunoassay for the Quantitative Determination of
Insulin-like Growth Factor Binding Protein-2

KAPME05

IN VITRO DIAGNOSTIC USE

en

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TECHNICAL FEATURES

Measures total IGFBP-2 concentration in serum, plasma and in other human body fluids

Single standards with **2; 10; 20; 40 and 80 ng/ml**

Total Incubation time only **1.75** hours

2 Control Sera are provided for quality control purposes according GLP

Ready-to-use Antibody Conjugate

No sample extraction needed

Microtiterplate separately break apart

INTENDED USE

Measurement of human IGFBP-2 in human serum, EDTA-plasma, cerebrospinal fluid, breast milk, amniotic fluid, saliva and in cell culture medium.

CLINICAL IMPLICATIONS

The IGFBP-2 concentration is age-dependent in blood (3).

Normal values for healthy individuals (1.5 to > 70 years) were evaluated for this assay.

Supplementary parameter to IGFBP-3 in the diagnosis of growth disorders (IGFBP-2/IGFBP-3 ratio), IGFBP-2 is an inhibitor of growth hormone action (3,4).

Progression-dependent tumor marker in leukaemia (5), astrocytic CNS tumors (6,7), prostate- (8), suprarenal cortex-(9)-, hepatocellular (10) and other carcinomas.

Anti-aging parameter: IGFBP-2 as a marker of physiological functionality (20).

INTRODUCTION

Insulin-like growth factors (IGFs) regulate the proliferation, differentiation, apoptose, cell adhesion and metabolism in various tissues and cell types. The IGF-I, which is produced mainly in liver under the influence of growth hormone (GH), regulates as hormone the linear growth of the bones and the process of sexual maturity, while IGF-II is mainly a growth factor of fetal tissue (11-13). The biological actions of IGF over the IGF-Type-I receptor are modulated variably through the IGF binding proteins (IGFBP-1 to-6) (14). IGFBP-2 is, after IGFBP-3, the second most frequent IGFBP in the human blood. IGFs, especially tumor typical pro-IGF-forms and hormones regulate the expression of IGFBP-2, GH effect is thereby inhibiting. At cellular level IGFBP-2 seems to stimulate the proliferation and dissemination of solid tumors via an IGF-independent mechanism (15,16).

PHYSIOLOGICAL MEANING

IGFBP-2 is a unglycosylated polypeptide of 31.3 kDa, which forms binary IGF-complexes and shows no circadian rhythm in the circulation. The serum concentration of IGFBP-2 increases in fasting, after major surgery and after trauma, but the increasing of the concentration is most intensive in malignant diseases. The correlation of the IGFBP-2 level to the degree of progression is a striking feature in various tumor types as is the normalization of the IGFBP-serum levels after remission (5-10). During the GH-therapy, e.g. in short stature and in GH-abuse (doping) the IGFBP-2 level decreases. In Trisomy 18 IGFBP-2 in maternal serum is decreased and IGFBP-1 is increased; therefore the ratio IGFBP-2 /IGFBP-1 is a marker for this chromosome abnormality (17).

MATERIALS

Materials Provided

- 1)

Microtiter plate, ready for use: **Microtiter plate** with 96 wells, divided up in 12 strips with 8 wells separately breakable, coated with anti-IGFBP-2 antibody and packed in a laminate bag.
- 2)

CAL	N
-----	---

Calibrators 1-5, lyophilized: contain recombinant IGFBP-2: Calibrator values are between 2 - 80 ng/ml (2, 10, 20, 40, 80 ng/ml) IGFBP-2 and have to be reconstituted with **750 µl Dilution Buffer** each.
- 3)

CONTROL	N
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2 Controls, lyophilized: Contains human serum and has to be reconstituted with **100 µl Dilution Buffer**. The exact concentration of IGFBP-2 is given on the vial label.
- 4)

DIL	BUF
-----	-----

Dilution Buffer, 50 ml, ready for use.
- 5)

Ab	BIOT
SAV	HRP

Antibody-Conjugate, 12 ml, ready for use, contains a mixture of biotinylated anti-IGFBP-2 antibody and HRP (Horseradish Peroxidase)-labelled Streptavidin. Use 100 µl/well in the assay.
- 6)

WASH	SOLN	CONC
------	------	------

Washing Buffer, 50 ml, 20-fold concentrated: The **Washing Buffer** has to be diluted 1:20 with distilled water or demineralised water before use (e.g. add the complete contents of the flask (50 ml) into a graduated flask and fill up with A.dest. to 1000 ml). Please dilute only according to requirements. The diluted washing buffer is stable for 4 weeks at 2-8°C. It has to be at room temperature for usage !
- 7)

CHROM	TMB
-------	-----

TMB-Substrate Solution 12 ml, ready for use, horseradish-peroxidase-(HRP)-substrate, stabilised H₂O₂ Tetramethylbencidine.
- 8)

STOP	SOLN
------	------

Stopping Solution, 0.2 M sulphuric acid, 12 ml, ready for use. *Caution Acid !*
- 9) **Sealing tape** for covering of the microtiter plate, 2 x

Materials not Provided

- Precision pipettes (100 and 200 µl) Micropipettes and multichannel pipettes with disposable plastic tips
- Distilled or Deionized water for dilution of the washing buffer
- Micropipettes and multichannel pipettes with disposable plastic tips
- Vortex-mixer
- Device to aspirate the calibrators and the samples from the wells (recommended because of the potential danger of infection by human samples)
- Plate washer and plate shaker (≥ 350 rpm) (recommended)
- Calibrated Microplate reader ("ELISA-Reader") with filter for 450/620nm wavelength
- Foil welding device for laminate bags (recommended)
- Timer (120 min. range)
- Reservoirs (disposable)

WARNING AND PRECAUTIONS

The kit should not be used beyond the expiration date on the kit label.

All reagents are for in vitro use only!

In conducting the assay, follow strictly the test protocol. The acquisition, possession and use of the kit are subject to the regulations of the national regulatory authorities.

Reagents with different lot numbers should not be mixed.

Reagents contain as preservative Proclin 950 (containing 0.009025% of 2-methyl-4-isothiazolin-3-one) and Kathon CG (containing 0.001615% of the mixture 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one). They can cause sensitisation by skin contact. (R 43 and S 26-36/37/39-45).

First aid procedures:

Skin contact: Wash affected area thoroughly with water. Discard contaminated cloths and shoes.

Eye contact: In case of contact with eyes, rinse immediately with plenty of water at least 15 minutes. In order to assure an effectual rinsing spread the eyelids.

Ingestion: If swallowed, wash out mouth thoroughly with water. Immediately see a physician. The Stop Solution provided is an acid solution. Avoid direct contact. Wear eye, hand, face and clothing protection when using this material.

The handling of potentially infectious material must comply with the following guidelines:

Do not eat, drink or smoke in these areas.

Never pipette the materials with the mouth.

Spilled material must be wiped off immediately and should become disinfected. Clean contaminated areas and equipment with a suitable detergent.

METHODOLOGY

Principle

The DIAsource IGFBP-2 KAPME05 Elisa kit is a so-called Sandwich-Assay using two specific and high affinity antibodies. The IGFBP-2 in the samples binds to the first antibody coated on the microtiter plate. In the following step the second specific anti-IGFBP-2-Antibody binds in turn to the immobilised IGFBP-2. The second antibody is biotinylated and will be applied in a mixture with a Streptavidin-Peroxidase-Enzyme Conjugate. In the closing substrate reaction the turn of the colour will be catalysed quantitatively depending on the IGFBP-2-level of the samples.

Sample Preparation and Storage

Serum and plasma samples as well as cell culture medium, breast milk, amniotic fluid, cerebrospinal fluid and saliva are applicable.

The blood sample for serum preparation should be gained according to standardized venipuncture procedure. The samples should be stored without anticoagulation reagents. Hemolytic reactions have to be avoided. The blood has to be allowed to clot and after complete clotting, serum is separated by centrifugation.

Blood samples may be taken at any time of the day.

Storage at RT max. 2 days

Storage at -20°C max. 2 years

Are not allowed to have more than 10 freeze/thaw cycles.

Sample preparation

Samples have to be diluted 1:10-30-fold with Dilution Buffer.

For clinical purposes we recommend a standard dilution of **1:21**.

Suggestion for dilution protocol:

Mix 15 µl serum manually or with the aid of a dilutor with 300 µl Dilution Buffer (1:21). Use 2 x 100 µl of this dilution in the assay or pipette 100 µl buffer in wells and add 5 µl serum.

IGFBP-2 concentrations may be completely different in body fluids of human origin other than serum or cell culture supernatant (s. Table 5).

Technical hints

The assay has to be conducted strictly according the test protocol herein.

Reagents with different lot numbers cannot be mixed.

Calibrators and Controls

For the reconstitution of the lyophilised components (calibrators 1-5 and Control Sera), the kit Dilution Buffer has to be used. It is recommended to keep reconstituted reagents at room temperature for 15 minutes and then to mix them thoroughly but gently (no foam !) with a Vortex mixer.

The reconstituted calibrator and controls can be stored for 2 months at -20°C . Repeated freeze/thaw cycles have to be avoided.

The Microtiterplate and all reagents are stable until the expiry date if stored in the dark at $2-8^{\circ}\text{C}$ (see label). Store the unused seal stripes of the microtiterplate together with the desiccant at $2-8^{\circ}\text{C}$.

Bring all reagents to room temperature ($20 - 25^{\circ}\text{C}$) before use. Possible precipitations in the buffers have to be resolved before usage by mixing and / or warming.

The required volume of washing buffer is prepared by 1:20 dilution of the provided 20fold concentrate with deionised water. The diluted washing buffer is stable for 4 weeks at 2-8°C. It has to be at room temperature for usage!
 For reconstitution of lyophilized components the kit **Dilution Buffer** should be used. It is recommended to keep reconstituted reagents at room temperature for 15 minutes and then to mix them thoroughly but gently (no foam should result), with a Vortex mixer.
 The reconstituted standard and controls can be stored for 2 month at -20°C..Avoid repeated freeze-thaw cycles.
 Room temperature incubation means: incubation at 20 - 25°C.

ASSAY PROCEDURE

All determinations (Calibrators, Control Sera and samples) should be assayed in duplicate. For optimal results, accurate pipetting and adherence to the protocol are recommended.

When performing the assay, the **Calibrators 1-5 and Control Serum** should be pipetted as fast as possible (e.g., 15 Minutes). Antibody-Conjugate and the **Substrate solution** should be added to the plate in the same order and the same time interval as the samples. **Stop Solution** should be added to the plate in the same order as the **Substrate Solution**.

- 1) Add **100 µl** Dilution Buffer to the first wells (blank). Subsequently, add **100µl** of each Calibrator or diluted **Control (1 & 2)** or diluted **Sample** to the following wells.
- 2) Cover the wells with sealing tape and incubate the plate for **1 hour** shaking at room temperature at **≥ 350 rpm**.
- 3) After incubation aspirate the contents of the wells into a disinfectant (risk of infection!) and wash the wells 3 times with **250 µl** of **Washing Buffer** / well respectively. The **Washing Buffer** should incubate at least for **15 seconds**/well.
- 4)Following the last washing step pipette **100µl** of the **Antibody-Conjugate** in each well. and incubate the plate for **30 Minutes** shaking at **room temperature at ≥ 350 rpm**.
- 5) After incubation wash the wells 3 times with **Washing Buffer** as described above.
- 6) Pipette **100 µl** of the **TMB-substrate** solution in each well.
- 7) Incubate the plate for **15 minutes** in the dark at **room temperature**.
- 8) Stop the reaction by adding **100 µl** of **Stopping Solution** to all the wells.
- 9) Measure the absorbance within **30 minutes** at **450 nm** (reference filter: **≥ 590 nm**).

EVALUATION OF RESULTS

Establishing the Calibration Curve:

The calibrators provided contain the following concentrations of IGFBP-2:

Standard	A	B	C	D	E
Ng/ml	2	10	20	40	80

- 1) Calculate the mean absorbance (MA) value for the blank from the duplicated determination (well A1/A2).
- 2) Subtract the mean absorbance (MA) of the blank from the mean absorbance of all other values.
- 3) Plot the calibrators concentrations 1-5 on the x-axis versus the mean value of the absorbance of the calibrators on the y-axis. Read the concentration of each control and sample by interpolation on the calibration curve.
- 4) Recommendation: Calculation of calibration curve and sample concentrations should be done by using a computer programme, because the standard curve is in general best described by non-linear regression, a higher-grade polynomial or four parametric logistic (4-PL) curve fit are in general suited for the evaluation.
- 5) The IGFBP-2 concentration of the diluted sample or the diluted control sera 1&2 in ng/ml is calculated in this way, the IGFBP-2 concentration of the **undiluted sample** and of 1 & 2 is calculated **by multiplication** with the respective dilution factor.

The exemplary shown calibration curve in Fig.1 **cannot be used** for calculation of your test results. You have to establish a calibration curve for each test you conduct!

Exemplary calculation of the IGFBP-2 concentration of undiluted sample:

Measured extinction of your sample	0.37
Measured extinction of the blank	0.06

Your **measurement program** will calculate the IGFBP-2 concentration of the diluted sample automatically by using the difference (0.31) of sample and blank for the calculation. You only have to determine the most suitable curve fit (here: polynomial 3rd degree).

In this exemplary case the following equation is solved by the program to calculate the IGFBP-2 concentration in the sample:

$$0.31 = -0.0012048 + 0.039581x + 5.1788 \cdot 10^{-0,005} \cdot x^2 - 1.8929x \cdot 10^{-0,06} \cdot x^3$$

$$7.93 = x$$

if the dilution factor (**1:21**) is taken into account the IGFBP-2 concentration of the undiluted sample is $7.93 \times 21 = 166.55$ ng/ml

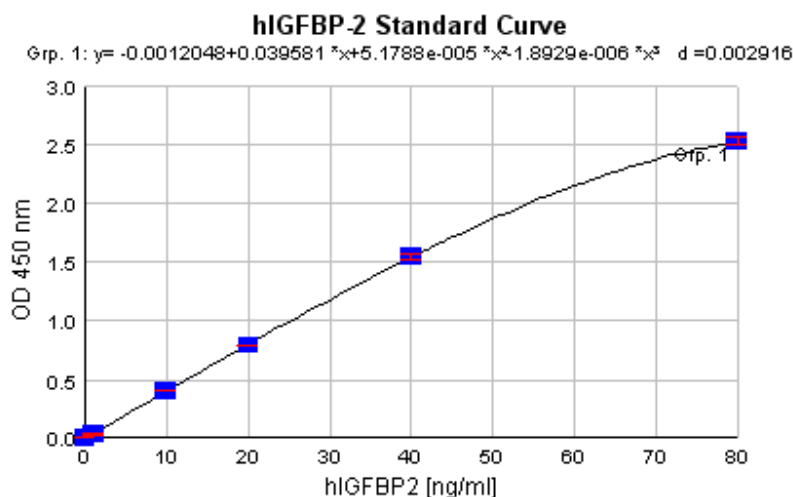


Fig. 1: Exemplary Calibration Curve with a polynomial 3rd degree as curve fit.

PERFORMANCE CHARACTERISTICS

Standards

The Standards of the IGFBP-2 Elisa KAPME05 are prepared from **human IGFBP-2** in concentrations of 2, 10, 20, 40 and 80 ng/ml.

Sensitivity

The analytical sensitivity of the assay yields 0.2 ng/ml (2x SD of zero calibrator)

Specificity

This assay is specific for human IGFBP-2, only low degree of cross reactions was found with dog, horse, donkey, cat and goat. No cross-reactivity was with pig, bovine, rabbit, mouse, chicken, rat, guinea pig, sheep.

There is no cross-reactivity with IGFBP-1 nor IGFBP-3

Interference

Interference of bilirubin and triglycerides was tested by adding different amounts of these substances to human serum containing IGFBP-2. For comparison the same amount of buffer without any substance was also added to the serum. Table 1 demonstrates that neither bilirubin nor triglycerides exert any influence on the measurement of IGFBP-2 in human serum.

Table 1: Interference

Bilirubin		Triglycerides	
[µg/ml]	% of control	[mg/ml]	% of control
25	95.07	12.5	100.79
50	92.80	25	101.01
100	93.83	50	103.65
200	88.15	100	101.34

Recovery

Recombinant IGFBP-2 was added in three different concentration to human serum. The IGFBP-2 concentration was measured and the mean relative recovery in comparison to buffer was 108%. Some exemplary data are shown in table 2.

Table 2: Recovery of recombinant human IGFBP-2 in Serum

NIBSC IGFBP-2 [ng/ml]	+1000 ng/ml	+500 ng/ml	+100 ng/ml	Mean [ng/ml]
% Recovery	100,00	112,00	114,00	108,67

Reproducibility and Precision

The inter- and intra assay coefficients of variability are below 10%. Exemplary determinations are shown in table 3 and 4.

Table 3 : Interassay-Variation

Sample1 (ng/ml)	137	159	152
Sample 2 (ng/ml)	672	697	688
Sample 3 (ng/ml)	928	929	956

Table 4: Intra-Assay-Variation

Sample 1 ng/ml	322	375	298	305	318	311	320	325	302	301	305	317
Sample 2 ng/ml	612	609	616	648	594	597	620	613	617	611	636	698

Table 5: Linearity of the sample dilution:

Dilution	Serum 1 (ng/ml)	Serum 2 (ng/ml)	Cerebrospinal fluid (ng/ml)	Amniotic fluid (ng/ml)
1:10	938	582	426	Not determined
1:20	1061	673	428	460
1:40	1055	719	379	483
1:80	1004	691	318	431
1:160	952	668	426	415

EXPECTED VALUES

The IGFBP-2 concentration in serum is depended on age (Table 8) and on Body Mass Index (BMI; Table 7). For data collection of these reference values IGFBP-2 levels were determined in serum of over 400 normal children and adults (see table 8 figure 2); (3).

Please see the expected values of IGFBP-2 levels in other human body fluids than serum and in cell culture medium in the table 6.

Table 6: Expected values of IGFBP-2 in body fluids of human origin and in cell culture supernatants:

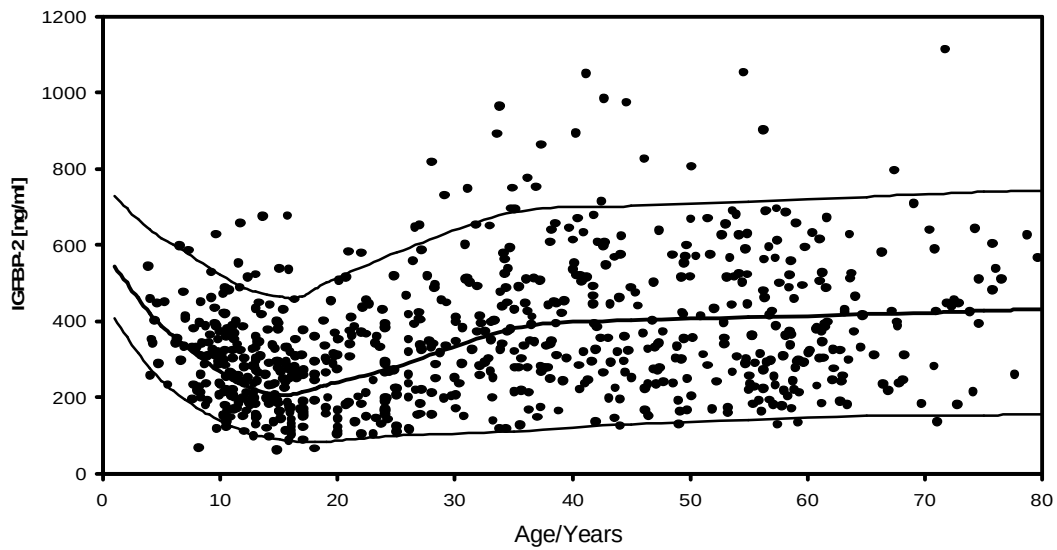
Sample	Expected Value (ng/ml)
serum	[100 - 1000]
liquor	[100 - 300]
amniotic fluid	[200 - 10000]
seminal plasma	[5000 - 15000]
breast milk	[1500-3000]
cell culture supernatants	[5 - 300]

Table 7: BMI dependent reference values, adults between 20 and 80 years

BMI [kg/m ²]	N	IGFBP-2 [ng/ml]		percentiles		
		mean	SD	5th	50th	95th
15	12	612	110	431	612	793
17,5	14	568	126	361	568	775
20	76	509	144	271	509	746
22,5	124	449	162	182	449	716
25	101	398	165	127	398	670
27,5	52	348	147	106	348	590
30	25	315	118	120	315	510
32,5	15	282	90	135	282	430
35	4	251	80	119	251	383
37,5	4	220	71	104	220	336

Table 8: IGFBP-2 serum levels (in ng/ml) of > 400 healthy individuals. The normal range is given by the 5., 50. and 95. percentile for age classes.
Age-dependent normal range of serum IGFBP-2

age (years)	5. percentile (ng/ml)	50. percentile (ng/ml)	95. percentile (ng/ml)
1	408	545	728
2	359	500	696
3	317	460	668
4	277	421	640
5	243	388	617
6	217	361	602
7	194	336	583
8	173	312	562
9	154	289	542
10	138	268	522
11	123	249	503
12	111	232	486
13	101	219	477
14	94	212	470
15	89	207	465
16	86	207	460
17	84	214	466
18	84	223	483
19	84	232	500
25	99	280	580
35	110	381	686
45	130	403	702
55	140	410	715
65	151	418	727
75	153	427	740
80	156	430	744



Assembled by Dr. R. Schweizer, Tübingen, Germany

LIMITATION

Deviation from the reference range can be expected especially in hypothyroidism, after major surgery, in polytrauma, in Diabetes mellitus (due to insulin therapy), in fasting and in malignant diseases.

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SUMMARY OF THE ASSAY

Reagent:	Reconstitution:	dilution:
Calibrators 1-5	in 750 µl Dilution Buffer	
Control Serum 4 (1 & 2)°	in 100 µl Dilution Buffer	1:21 with Dilution Buffer
Washing Buffer		1:20 with Distilled water (e.g., add the complete contents of the flask (50 ml) into a graduated flask and fill with Distilled water to 1000 ml).
Sample Dilution: Serum samples should be diluted prior to measurement 1:10-30-fold with Dilution Buffer depending on the expected values. In general a dilution of 1:21 is appropriate. Use 2 x 100 µl of this dilution in the assay		

Assay Procedure for Double Determination

Pipette	Reagents	Position
100 µl	Dilution Buffer	A1/2
100 µl	Calibrator 1 (2 ng/ml)	B1/2
100 µl	Calibrator 2 (10 ng/ml)	C1/2
100 µl	Calibrator 3 (20 ng/ml)	D1/2
100 µl	Calibrator 4 (40 ng/ml)	E1/2
100 µl	Calibrator 5 (80 ng/ml)	F1/2
100 µl	Control Serum 1	G1/2
100 µl	Control Serum 2	H1/2
100 µl	Sample dilution	following wells
Cover the wells with the sealing tape.		
Incubation: 1 h at RT, ≥ 350 rpm		
3x 250 µl	Aspirate the contents of the wells and wash 3x with 250 µl Wash Buffer	each well
100 µl	Antibody-Conjugate	each well
Incubation: 30 min at RT, ≥ 350 rpm		
3x 250 µl	Aspirate the contents of the wells and wash 3x with 250 µl Wash Buffer	each well
100 µl	Substrate Solution	each well
Incubation: 15 min in the Dark at RT		
100 µl	Stopping Solution	each well
Measure the absorbance within 30 min at 450 nm with ≥ 590 nm as reference wavelength.		

Revision Date: 2009-06-04

	<u>Used symbols</u>	<u>Symboles utilisés</u>
	Consult instructions for use	Consulter les instructions d'utilisation
	Storage temperature	Température de conservation
	Use by	Utiliser jusque
	Batch code	Numéro de lot
	Catalogue number	Référence de catalogue
	Control	Contrôle
	In vitro diagnostic medical device	Dispositif médical de diagnostic in vitro
	Manufacturer	Fabricant
	Contains sufficient for <n> tests	Contenu suffisant pour <n> tests
	Wash solution concentrated	Solution de lavage concentrée
	Zero calibrator	Calibrateur zéro
	Calibrator #	Calibrateur #
	Control #	Contrôle #
	Tracer	Traceur
	Tracer	Traceur
	Tracer concentrated	Traceur concentré
	Tracer concentrated	Traceur concentré
	Tubes	Tubes
	Incubation buffer	Tampon d'incubation
	Acetonitrile	Acétonitrile
	Serum	Sérum
	Specimen diluent	Diluant du spécimen
	Dilution buffer	Tampon de dilution
	Antiserum	Antisérum
	Immunoabsorbent	Immunoabsorbant
	Calibrator diluent	Diluant de calibrateur
	Reconstitution solution	Solution de reconstitution
	Polyethylene glycol	Glycol Polyéthylène
	Extraction solution	Solution d'extraction
	Elution solution	Solution d'élution
	Bond Elut Silica cartridges	Cartouches Bond Elut Silica
	Pre-treatment solution	Solution de pré-traitement
	Neutralization solution	Solution de neutralisation
	Tracer buffer	Tampon traceur
	Microtiterplate	Microplaque de titration
	HRP Conjugate	HRP Conjugué
	HRP Conjugate	HRP Conjugué
	HRP Conjugate concentrate	HRP Conjugué concentré
	HRP Conjugate concentrate	HRP Conjugué concentré
	Conjugate buffer	Tampon conjugué
	Chromogenic TMB concentrate	Chromogène TMB concentré
	Chromogenic TMB solution	Solution chromogène TMB
	Substrate buffer	Tampon substrat
	Stop solution	Solution d'arrêt
	Incubation serum	Sérum d'incubation
	Buffer	Tampon
	AP Conjugate	AP Conjugué
	Substrate PNPP	Tampon PNPP
	Biotin conjugate concentrate	Biotine conjugué concentré
	Avidine HRP concentrate	Avidine HRP concentré
	Assay buffer	Tampon de test
	Biotin conjugate	Biotine conjugué
	Specific Antibody	Anticorps spécifique
	Streptavidin HRP concentrate	Concentré streptavidine HRP
	Non-specific binding	Liant non spécifique
	2nd Antibody	Second anticorps
	Acidification Buffer	Tampon d'acidification

	<u>Gebruikte symbolen</u>	<u>Gebrauchte Symbolen</u>
	Raadpleeg de gebruiksaanwijzing	Gebrauchsanweisung beachten
	Bewaartemperatuur	Lagern bei
	Houdbaar tot	Verwendbar bis
	Lotnummer	Chargenbezeichnung
	Catalogusnummer	Bestellnummer
	Controle	Kontrolle
	Medisch hulpmiddel voor in-vitro diagnostiek	In Vitro Diagnostikum
	Fabrikant	Hersteller
	Inhoud voldoende voor <n> testen	Ausreichend für <n> Ansätze
	Wasoplossing, geconcentreerd	Waschlösung-Konzentrat
	Nulkalibrator	Null kalibrator
	Kalibrator #	Kalibrator #
	Controle #	Kontrolle #
	Tracer	Tracer
	Tracer	Tracer
	Tracer geconcentreerd	Tracer Konzentrat
	Tracer geconcentreerd	Tracer Konzentrat
	Buisjes	Röhrchen
	Incubatiebuffer	Inkubationspuffer
	Acetonitrile	Azetonitril
	Serum	Humanserum
	Specimen diluent	Probenverdünner
	Verdunningsbuffer	Verdünnungspuffer
	Antiserum	Antiserum
	Immunoabsorbent	Immunadsorbens
	Kalibratorverdunner	Kalibratorverdünnung
	Reconstitutieoplossing	Rekonstitutionslösung
	Polyethyleen glycol	Polyethylenglykol
	Extractieoplossing	Extraktionslösung
	Elutieoplossing	Eluierungslösung
	Bond Elut Silica kolom	Bond Elut Silikakartuschen
	Pre-behandelingsoplossing	Vorbehandlungslösung
	Neutralisatieoplossing	Neutralisierungslösung
	Tracerbuffer	Tracer-Puffer
	Microtiterplaat	Mikrotiterplatte
	HRP Conjugaat	HRP Konjugat
	HRP Conjugaat	HRP Konjugat
	HRP Conjugaat geconcentreerd	HRP Konjugat Konzentrat
	HRP Conjugaat geconcentreerd	HRP Konjugat Konzentrat
	Conjugaat buffer	Konjugatpuffer
	Chromogene TMB geconcentreerd	Chromogenes TMB Konzentrat
	Chromogene Oplossing TMB	Farblösung TMB
	Substraatbuffer	Substratpuffer
	Stopoplossing	Stopplösung
	Incubatieserum	Inkubationsserum
	Buffer	Puffer
	AP Conjugaat	AP Konjugat
	Substraat PNPP	Substrat PNPP
	Geconcentreerd Biotine conjugaat	Biotin-Konjugat-Konzentrat
	Geconcentreerd Avidine-HRP conjugaat	Avidin-HRP-Konzentrat
	Assay buffer	Assaypuffer
	Biotine conjugaat	Biotin-Konjugat
	Specifiek antilichaam	Spezifischer Antikörper
	Streptavidine-HRP concentraat	HRP Streptavidinkonzentrat
	Aspecifieke binding	Unspezifische Bindung
	2de antilichaam	Sekundärer Antikörper
	Verzuringbuffer	Ansäuerungspuffer

	<u>Simboli utilizzati</u>	<u>Símbolos utilizados</u>
	Consultare le istruzioni per l'uso	Consultar las instrucciones de uso
	Limitazioni di temperatura	Límitación de temperatura
	Utilizzare entro	Fecha de caducidad
	Numero di lotto	Código de lote
	Numero di catalogo	Número de catálogo
	Controllo	Control
	Dispositivo medico-diagnostico in vitro	Producto sanitario para diagnóstico in vitro
	Fabbricante	Fabricante
	Contenuto sufficiente per <n> saggi	Contenido suficiente para <n> ensayos
	Tampone di lavaggio concentrato	Solución de lavado concentrada
	Calibratore zero	Calibrador cero
	Standard #	Calibrador #
	Controllo #	Control #
	Marcato	Trazador
	Marcato	Trazador
	Marcato concentrato	Trazador concentrada
	Marcato concentrato	Trazador concentrada
	Provette	Tubos
	Tampone incubazione	Tampón de incubación
	Acetonitrile	Acetonitrilo
	Siero	Suero
	Diluente campione	Diluyente de Muestra
	Tampone diluizione	Tampón de dilución
	Antisiero	Antisuero
	Immunoassorbente	Inmunoadsorbente
	Diluente calibratore	Diluyente de calibrador
	Soluzione di ricostituzione	Solución de Reconstitución
	Polietilenglicole	Glicol Polietileno
	Soluzione di estrazione	Solución de extracción
	Soluzione di eluizione	Solución de elución
	Cartucce di silice bond elut	Cartuchos Bond Elut Silica
	Soluzione di pretrattamento	Solución de Pre-tratamiento
	Soluzione di neutralizzazione	Solución de Neutralización
	Tracer Buffer	Tampón de trazador
	Piastra di microtitolazione	Placa de microvaloración
	HRP Coniugato	HRP Conjugado
	HRP Coniugato	HRP Conjugado
	HRP Coniugato concentrato	HRP Conjugado concentrada
	HRP Coniugato concentrato	HRP Conjugado concentrada
	Buffer coniugato	Tampón de Conjugado
	Cromogena TMB concentrato	Cromógena TMB concentrada
	Soluzione cromogena TMB	Solución Cromógena TMB
	Tampone substrato	Tampón de sustrato
	Soluzione di arresto	Solución de Parada
	Incubazione con siero	Suero de Incubación
	Buffer	Tampón
	AP Coniugato	AP Conjugado
	Substrato PNPP	Sustrato PNPP
	Concentrato coniugato con biotina	Concentrado de conjugado de biotina
	Concentrato avidina HRP	Concentrado avidina-HRP
	Soluzione tampone per test	Tampón de ensayo
	Coniugato con biotina	Conjugado de biotina
	Anticorpo Specifico	Anticuerpo específico
	Streptavidina-HRP concentrata	Estreptavidina-HRP Concentrado
	Legame non-specifico	Unión no específica
	2° Anticorpo	Segundo anticuerpo
	Tampone Acidificante	Tampón de Acidificación

	<u>Símbolos utilizados</u>	<u>Använda symboler</u>
	Consulte instruções de utilização	Läs instruktionerna före användning
	Temperatura de conservação	Förvaringstemperatur
	Utilizar antes de	Används av
	Código de lote	Lotnummer
	Número de catálogo	Katalognummer
	Controlo	Kontroll
	Dispositivo médico de diagnóstico in vitro	In vitro diagnostiskt kit
	Fabricante	Tillverkare
	Conteúdo suficiente para <n> testes	Innehållet räcker till <n> prover
	Solução de lavagem concentrada	Tvättlösning, koncentrerad
	Calibrador zero	Nollkalibrerare
	Calibrador #	Kalibrator #
	Controlo #	Kontroll #
	Marcador	Radioisotop, antigen
	Marcador	Radioisotop, antikropp
	Marcador concentrada	Radioisotop, antigen koncentrerad
	Marcador concentrada	Radioisotop, antikropp koncentrerad
	Tubos	Rör
	Tampão de incubação	Inkuberingsbuffert
	Acetonitrilo	Acetonitril
	Soro	Serum
	Diluidor de espécimes	Spädningsbuffert för prover
	Tampão de diluição	Spädningsbuffert
	Anti-soro	Antiserum
	Imunoadsorvente	Immunoadsorberare
	Diluyente do calibrador	Kalibratordiluent
	Solução de Reconstituição	Rekonstitutionslösning
	Polietileno-glicol	Polyetylen glykol
	Solução de Extracção	Extraktionslösning
	Solução de Eluição	Elueringslösning
	Cartuchos de sílica Bond Elut	Silikonpatroner för elueringsbindning
	Solução de pré-tratamento	Förbehandlingslösning
	Solução de neutralização	Neutraliseringslösning
	Tampão Marcador	Tracerbuffert
	Placa de micro titulação	Microtiterplatta
	HRP Conjugação	HRP-konjugat
	HRP Conjugação	HRP-konjugat
	HRP Conjugação concentrada	HRP-konjugat-koncentrat
	HRP Conjugação concentrada	HRP-konjugat-koncentrat
	Conjuge o tampão	Konjugatbuffert
	Cromogénica TMB concentrada	Kromogeniskt TMB-koncentrat
	Solução Cromogénica TMB	Kromogenisk TMB-lösning
	Tampão de substrato	Substratbuffert
	Solução de Paragem	Stopplösning
	Soro de incubação	Inkubationsserum
	Tampão	Buffert
	AP Conjugação	AP-konjugat
	Substrato PNPP	Substrat-PNPP
	Concentrado conjugado de biotina	Biotinkonjugat koncentrat
	Concentrado HRP de avidina	Avidin HRP-koncentrat
	Tampão de ensaio	Provbuffert
	Conjugado de biotina	Biotinkonjugat
	Anticorpo específico	-
	Estreptavidina HRP concentrado	-
	Ligações não específicas	-
	Anticorpo secundário	-
	Tampão de acidificação	-

	<u>Επεξήγηση συμβόλων</u>	<u>Anvendte symboler</u>
	Συμβουλευτείτε τις οδηγίες χρήσης	Læs brugsvejledningen
	Θερμοκρασία αποθήκευσης	Opbevaringstemperatur
	Ημερομηνία λήξης	Anvend inden
	Αριθμός παρτίδας	Batchkode
	Αριθμός καταλόγου	Katalognummer
	Πρότυπο ελέγχου	Kontrol
	In Vitro Διαγνωστικό Ιατροτεχνολογικό προϊόν	Medicinsk udstyr til in vitro-diagnosticering
	Κατασκευαστής	Fabrikant
	Περιεχόμενο επαρκές για «n» εξετάσεις	Indeholder nok til <n> test
	Συμπυκνωμένο διάλυμα έκπλυσης	Koncentreret vaskeopløsning
	Μηδενικός βαθμονομητής	Nul-kalibrator
	Βαθμονομητής #	Kalibrator nr.
	Ορός ελέγχου #	Kontrol nr.
	Ιχνηθέτης	Markør
	Ιχνηθέτης	Markør
	Χρωμογόνος Ιχνηθέτης	Koncentreret markør
	Χρωμογόνος Ιχνηθέτης	Koncentreret markør
	Σωληνάρια	Tuber
	Ρυθμιστικό διάλυμα επώασης	Inkubationsbuffer
	Ακετονιτρίλιο	Acetonitril
	Ορός	Serum
	Διάλυμα αραίωσης δειγμάτων	Prøvediluent
	Ρυθμιστικό διάλυμα αραίωσης	Fortyndingsbuffer
	Αντιορός	Antiserum
	Ανοσοπροσροφητικό	Immonoadsorbent
	Αραιωτικό βαθμονομητών	Kalibratordiluent
	Διάλυμα ανασύστασης	Rekonstitueringsopløsning
	Πολυαιθυλενογλυκόλη	Polyetylglykol
	Διάλυμα εκχύλισης	Ekstraktionsopløsning
	Διάλυμα έκλουσης	Elueringsopløsning
	Φύσιγγες πυριτίου Bond Elut	Patroner med bindingselueringssilica
	Διάλυμα προεπεξεργασίας	Forbehandlingsopløsning
	Διάλυμα εξουδετέρωσης	Neutraliseringsopløsning
	Ρυθμιστικό διάλυμα	Markørbuffer
	Πλάκα μικροτιτλοδότησης	Mikrotiterplade
	HRP Σύζευγμα	HRP-konjugat
	HRP Σύζευγμα	HRP-konjugat
	Χρωμογόνος HRP Σύζευγμα	HRP-konjugat-koncentreret
	Χρωμογόνος HRP Σύζευγμα	HRP-konjugat-koncentreret
	Ρυθμιστικό διάλυμα συζεύγματος	Konjugatbuffer
	Χρωμογόνος TMB	Kromogen TMB-koncentreret
	Διάλυμα χρωμογόνου TMB	Kromogen TMB-opløsning
	Ρυθμιστικό διάλυμα υποστρώματος	Substratbuffer
	Ανασχετικό αντιδραστήριο	Stopopløsning
	Ορός επώασης	Inkubationsserum
	Ρυθμιστικό διάλυμα	Buffer
	AP Σύζευγμα	AP-konjugat
	PNPP υποστρώματος	Substrat PNPP
	Συμπυκνωμένο αντιδραστήριο συζευγμένο με βιοτίνη	Biotin konjugat koncentrat
	Συμπυκνωμένο διάλυμα αβιδίνης-HRP	Avidin HRP koncentrat
	Ρυθμιστικό διάλυμα προσδιορισμού	Prøvebuffer
	αντιδραστήριο συζευγμένο με βιοτίνη	Biotin konjugat
	Ειδικό Αντίσωμα	-
	Συμπυκνωμένη στρεπταβιδίνη συνεξευγμένη με HRP	-
	μη-ειδική δέσμευση	-
	2ο Αντίσωμα	-
	Ρυθμιστικό Διάλυμα όξινο	-

	<u>Stosowane symbole</u>	<u>Használt szimbólumok</u>
	Przed zastosowaniem zapoznać się z instrukcją	Olvassa el a használati útmutatót
	Temperatura przechowywania	Tárolási hőmérséklet
	Zużyć przed	Lejáratí idő
	Kod serii	Gyártási kód
	Numer katalogowy	Katalógus szám
	Kontrola	Kontrol
	Urządzenie medyczne do diagnostyki in vitro	In vitro diagnosztikai eszköz
	Producent	Gyártó
	Zawartość wystarczająca do <n> testów	Tartalma <n> teszt elvégzésére elegendő
	Roztwór płuczący stężony	Mosó folyadék koncentrátum
	Kalibrator zerowy	Zero kalibrátor
	Kalibrator nr	Kalibrátor #
	Kontrola nr	Kontrol #
	Znacznik izotopowy	Nyomjelző izotóp
	Znacznik izotopowy	Nyomjelző izotóp
	Znacznik izotopowy stężony	Nyomjelző izotóp koncentrátum
	Znacznik izotopowy stężony	Nyomjelző izotóp koncentrátum
	Probówki	Csővek
	Wymagana inkubacja buforu	Inkubáló puffer
	Acetonitryl	Acetonitril
	Surowica	Szérum
	Rozcieńczalnik próbki	Mintahígító
	Bufor do rozcieńczania	Hígító puffer
	Antysurowica	Antiszérum
	Immunoabsorbent	Immunadszorbens
	Rozcieńczalnik kalibratora	Kalibrátor hígító
	Roztwór do rozcieńczania	Mintaelőkészítő oldat
	Glikol poli(oksy)etylenowy	Polietilén glikol
	Roztwór ekstrakcyjny	Extrakciós oldat
	Roztwór elucyjny	Eluáló oldat
	Kolumny krzemionkowe Bond Elut	Bond Elut Silica szilikagél patronok
	Roztwór do przygotowania wstępnego	Előkezelő oldat
	Roztwór neutralizujący	Semlegesítő oldat
	Bufor znacznika	Nyomjelző izotóp hígító puffer
	mikro płytki	Mikrotiter lemez
	Koniugat peroksydazy chrzanowej	HRP konjugátum
	Koniugat peroksydazy chrzanowej	HRP konjugátum
	Koncentrat koniugatu peroksydazy chrzanowej	HRP konjugátum koncentrátum
	Koncentrat koniugatu peroksydazy chrzanowej	HRP konjugátum koncentrátum
	Bufor do koniugacji	Konjugátum puffer
	Koncentrat chromogenu TMB (czterometylobenzodyny)	Kromogén TMB koncentrátum
	Roztwór chromogenu TMB (czterometylobenzodyny)	Kromogén TMB oldat
	Bufor substratu	Szubsztrát puffer
	Roztwór zatrzymujący reakcję	Stop oldat
	Wymagana inkubacja surowicy	Inkubációs szérum
	Bufor	Puffer
	Koniugat AP (fosfatazy alkalicznej)	AP konjugátum
	p-nitrofenylofosforan substratowy	Szubsztrát PNPP
	Koncentrat koniugatu biotyny	Biotin konjugátum koncentrátum
	Koncentrat peroksydazy chrzanowej z awidyną	Avidin HRP koncentrátum
	Bufor do oznaczania	Vizsgálati puffer
	Koniugatu biotyny	Biotin konjugátum
	Przeciwciało swoiste	Specifikus ellenanyag
	Koncentrat streptawidyny HRP	Sztreptawidin HRP koncentrátum
	Wiązanie nieswoiste	Nem-specifikus kötődés
	Drugie przeciwciało	Másodlagos ellenanyag
	Bufor zakwaszający	Savas puffer

	<u>Използвани символи</u>					
	Вижте инструкцията за работа					
	Температура на съхранение					
	Използвайте с					
	Партиден код					
	Каталожен номер					
	Контрол					
	Ин витро диагностично медицинско изделие					
	Производител					
	Съдържание достатъчно за <n> теста					
<table><tr><td>WASH</td><td>SOLN</td><td>CONC</td></tr></table>	WASH	SOLN	CONC	Концентриран измиващ разтвор		
WASH	SOLN	CONC				
<table><tr><td>CAL</td><td>0</td></tr></table>	CAL	0	Нулев калибратор			
CAL	0					
<table><tr><td>CAL</td><td>N</td></tr></table>	CAL	N	Калибратор #			
CAL	N					
<table><tr><td>CONTROL</td><td>N</td></tr></table>	CONTROL	N	Контрол #			
CONTROL	N					
<table><tr><td>Ag</td><td>125I</td></tr></table>	Ag	125I	Трейсър			
Ag	125I					
<table><tr><td>Ab</td><td>125I</td></tr></table>	Ab	125I	Трейсър			
Ab	125I					
<table><tr><td>Ag</td><td>125I</td><td>CONC</td></tr></table>	Ag	125I	CONC	Концентриран маркер		
Ag	125I	CONC				
<table><tr><td>Ab</td><td>125I</td><td>CONC</td></tr></table>	Ab	125I	CONC	Концентриран маркер		
Ab	125I	CONC				
	Епруветки					
<table><tr><td>INC</td><td>BUF</td></tr></table>	INC	BUF	Инкубационен буфер			
INC	BUF					
<table><tr><td>ACETONITRILE</td></tr></table>	ACETONITRILE	Ацетонитрил				
ACETONITRILE						
<table><tr><td>SERUM</td></tr></table>	SERUM	Серум				
SERUM						
<table><tr><td>DIL</td><td>SPE</td></tr></table>	DIL	SPE	Разредител за пробите			
DIL	SPE					
<table><tr><td>DIL</td><td>BUF</td></tr></table>	DIL	BUF	Буфер за разреждане			
DIL	BUF					
<table><tr><td>ANTISERUM</td></tr></table>	ANTISERUM	Антисерум				
ANTISERUM						
<table><tr><td>IMMUNOABSORBENT</td></tr></table>	IMMUNOABSORBENT	Имуноабсорбент				
IMMUNOABSORBENT						
<table><tr><td>DIL</td><td>CAL</td></tr></table>	DIL	CAL	Разредител за калибратора			
DIL	CAL					
<table><tr><td>REC</td><td>SOLN</td></tr></table>	REC	SOLN	Пресъздаващ разтвор			
REC	SOLN					
<table><tr><td>PEG</td></tr></table>	PEG	Полиетилен гликол				
PEG						
<table><tr><td>EXTR</td><td>SOLN</td></tr></table>	EXTR	SOLN	Екстрактов разтвор			
EXTR	SOLN					
<table><tr><td>ELU</td><td>SOLN</td></tr></table>	ELU	SOLN	Разтвор за елюиране			
ELU	SOLN					
<table><tr><td>GEL</td></tr></table>	GEL	Силикагелни пълнители				
GEL						
<table><tr><td>PRE</td><td>SOLN</td></tr></table>	PRE	SOLN	Пред-лечебен разтвор			
PRE	SOLN					
<table><tr><td>NEUTR</td><td>SOLN</td></tr></table>	NEUTR	SOLN	Неутрализиращ ратвор			
NEUTR	SOLN					
<table><tr><td>TRACEUR</td><td>BUF</td></tr></table>	TRACEUR	BUF	Маркерен буфер			
TRACEUR	BUF					
	Микротитърна пластина					
<table><tr><td>Ab</td><td>HRP</td></tr></table>	Ab	HRP	HRP конюгат / Конюгат на хрянова пероксидаза			
Ab	HRP					
<table><tr><td>Ag</td><td>HRP</td></tr></table>	Ag	HRP	HRP конюгат / Конюгат на хрянова пероксидаза			
Ag	HRP					
<table><tr><td>Ab</td><td>HRP</td><td>CONC</td></tr></table>	Ab	HRP	CONC	HRP конюгиран концентрат		
Ab	HRP	CONC				
<table><tr><td>Ag</td><td>HRP</td><td>CONC</td></tr></table>	Ag	HRP	CONC	HRP конюгиран концентрат		
Ag	HRP	CONC				
<table><tr><td>CONJ</td><td>BUF</td></tr></table>	CONJ	BUF	Буфер за конюгата			
CONJ	BUF					
<table><tr><td>CHROM</td><td>TMB</td><td>CONC</td></tr></table>	CHROM	TMB	CONC	Хромогенен TMB концентрат		
CHROM	TMB	CONC				
<table><tr><td>CHROM</td><td>TMB</td></tr></table>	CHROM	TMB	Хромогенен TMB разтвор			
CHROM	TMB					
<table><tr><td>SUB</td><td>BUF</td></tr></table>	SUB	BUF	Субстратен буфер			
SUB	BUF					
<table><tr><td>STOP</td><td>SOLN</td></tr></table>	STOP	SOLN	Стоп разтвор			
STOP	SOLN					
<table><tr><td>INC</td><td>SER</td></tr></table>	INC	SER	Инкубационен серум			
INC	SER					
<table><tr><td>BUF</td></tr></table>	BUF	Буфер				
BUF						
<table><tr><td>Ab</td><td>AP</td></tr></table>	Ab	AP	AP конюгат / конюгат на алкална фосфатаза			
Ab	AP					
<table><tr><td>SUB</td><td>PNPP</td></tr></table>	SUB	PNPP	Субстрат PNPP / пара нитрофенил фосфат			
SUB	PNPP					
<table><tr><td>BIOT</td><td>CONJ</td><td>CONC</td></tr></table>	BIOT	CONJ	CONC	Биотин конюгиран концентрат		
BIOT	CONJ	CONC				
<table><tr><td>AVID</td><td>HRP</td><td>CONC</td></tr></table>	AVID	HRP	CONC	Авидин HRP концентрат		
AVID	HRP	CONC				
<table><tr><td>ASS</td><td>BUF</td></tr></table>	ASS	BUF	Буфер за пробите			
ASS	BUF					
<table><tr><td>Ab</td><td>BIOT</td></tr></table>	Ab	BIOT	Биотин конюгат			
Ab	BIOT					
<table><tr><td>Ab</td></tr></table>	Ab	специфично анти тяло				
Ab						
<table><tr><td>SAV</td><td>HRP</td><td>CONC</td></tr></table>	SAV	HRP	CONC	стрептавидин HRP концентрат		
SAV	HRP	CONC				
<table><tr><td>NSB</td></tr></table>	NSB	не специфично свързване				
NSB						
<table><tr><td>2nd Ab</td></tr></table>	2nd Ab	второ анти тяло				
2nd Ab						
<table><tr><td>ACID</td><td>BUF</td></tr></table>	ACID	BUF	киселинизиращ буфер			
ACID	BUF					