Vol. 1

医薬臨床(化学分析使用)
標準物質総合カタログ

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医薬臨床編 目次

カタログに収録しておりませんが、EP（ヨーロッパ薬局方）・USP（米国薬局方）・
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全血関係

Toxic Metals in Bovine Blood　SRM966　(set2)			
Level 1		Level2	
Pb	1.56μ g/dL	Pb	25.27μ g/dL
Cd	(<0.4μ g/L)	Cd	5.22μ g/L
Hg(total)	(<0.06μ g/L)	Hg(total)	31.4μ g/L
		Hg(inorganic)	(14.1)μ g/L
		Hg(methyl Hg)	(17.3)μ g/L

Lead in Bovine Blood　SRM955c　(4バイアル)　単位はμ g/dL				
	Level 1	Level 2	Level 3	Level 4
Lead	0.424	13.95	27.76	45.53
Arsenic				
Cadmium	0.0317		5.201	
Mercury(Total)	0.017		17.8	

*Level 3　は上記水銀とは別に化学形態別としての水銀値が表されてます。

Human Blood　BCR634　単位はμ g/L	
Cd	1.4
Pb	46

Human Blood　BCR635　単位はμ g/L	
Cd	6.6
Pb	210

Human Blood　BCR636　単位はμ g/L	
Cd	11.6
Pb	0.52×10^3

Bovine Blood　ERM-CE195　単位はμ g/L	
Cd	5.06
Pb	416

Bovine Blood　ERM-CE196　単位はμ g/L	
Cd	12.33
Pb	772

Trace Elements in whole blood （セット販売ではありません）								
SERO201505		SERO201605			SERO201705			
Al	30	Al	55		Al	94		
Sb	1.64	Sb	26		Sb	83		
As	1.25	As	11.2		As	27		
Be	<0.010	Be	5.0		Be	11.1		
Bi	<0.020	Bi	5.1		Bi	11.9		
Cd	0.73	Cd	5.4		Cd	11.3		
Co	0.15	Co	5.2		Co	10.5		
Cr	0.78	Cr	5.7		Cr	11.6		
F	0	F	100		F	200		
Hg	2.06	Hg	7.7		Hg	14.4		
Mn	9.1	Mn	11.7		Mn	16.2		
Mo	0.55	Mo	6.0		Mo	11.5		
Ni	3.9	Ni	6.8		Ni	11.1		
Pb	33	Pb	395		Pb	641		
Se	79	Se	122		Se	177		
Tl	<0.01	Tl	5.2		Tl	10.2		
V	0.50	V	3.7		V	5.5		
10 x 5mL		10 x 5mL			10 x 5mL			
単位はμ g/L		単位はμ g/L			単位はμ g/L			

血清 関係

Human Serum SRM909c （ 3 x 2mL ）	
	mmol/L
Cholesterol	3.703
Creatinine	0.07289
total Glycerides	5.05
Triglycerides	1.214
Urea	4.321
Uric acid	0.278
Selenium	1.503 μ mol/L

Uncertified values	U/L
Total Protein	69.0 g/L
Sodium	141.8 mmol/L

Trace Elements in serum （セット販売ではありません）			
SERO201405 (6x3mL)		SERO203105 (6x3mL)	
Al	126 μ g/L	Al	111 μ g/L
Ca	108 mg/L	Ca	117 mg/L
Cr	1.02 μ g/L	Cr	5.2 μ g/L
Co	0.96 μ g/L	Co	3.2 μ g/L
Cu	1.18 mg/L	Cu	2.6 mg/L
F	75 μ g/L	F	200 μ g/L
Au	458 μ g/L	Au	1956 μ g/L
Fe	1.27 mg/L	Fe	1.91 mg/L
Li	5.4 mg/L	Li	10.6 mg/L
Mn	10.6 μ g/L	Mn	109.1 μ g/L
Mg	21.1 mg/L	Mg	28.9 mg/L
Hg	0.96 μ g/L	Hg	1.86 μ g/L
Ni	5.5 μ g/L	Ni	10.7 μ g/L
P	75 mg/L	P	42 mg/L
K	150 mg/L	K	236 mg/L
Se	83 μ g/L	Se	136 μ g/L
S	1043 mg/L	S	1330 mg/L
Na	3382 mg/L	Na	3783 mg/L
Zn	1.33 mg/L	Zn	0.92 mg/L

Certified values after reconstitution　　Certified values after reconstitution

Electrolytes in frozen human serum SRM956c （set 6）			
	Level 1 mmol/L	Level 2 mmol/L	Level 3 mmol/L
Tatal Calsium	2.981	2.538	2.095
Chloride	104.9	121.5	137.4
Lithium	1.606	1.068	0.457
Magnesium	1.247	0.857	0.470
Potassium	5.976	3.977	1.982
Sodium	118.8	137.5	157.4

Inorganic constituents in bovine serum SRM1598 （2x5mL）			
Cd	0.048 μ g/L	Ni	0.94 μ g/L
Co	1.24 μ g/L	Rb	274 μ g/L
Cs	0.64 μ g/L	Sb	1.00 μ g/L
Cu	1580 μ g/L	Se	134.4 μ g/L
Fe	2680 μ g/L	V	1.88 μ g/L
Mn	1.78 μ g/L	Zn	880 μ g/L

参考値　：Al, Ca, Cr, Hg, Mo

Ca(Ⅲ), Mg(Ⅱ), Li in human serum BCR 304 (vial)	
Ca (mmol/L)	2.201
Mg (mmol/L)	1.85
Li (mmol/L)	0.985

Al, Se, Zn　in human serum　（vial）　　セット販売ではありません					
BCR 637		BCR 638		BCR 639	
Al	12.5 μ g/L	Al	55 μ g/L	Al	194 μ g/L
Se	81 μ g/L	Se	104 μ g/L	Se	133 μ g/L
Zn	1.11 mg/L	Zn	1.43 mg/L	Zn	2.36 mg/L

コルチゾール分析用ヒト血清　　NMIJ　CRM6401-b		形状
レベル 1	21.0 g/L	合計4試料 1試料に付き0.5mL
レベル 2	48.3 g/L	
レベル 3	91.4 g/L	
レベル 4	188.8 g/L	

純度・結晶　関係

型　版	品　　名	純　　度(%)	容　量(g)
SRM 998	Angiotensin I (human)	94.1	0.5
SRM 915b	Calcium Carbonate　(Value %)	wCaCO3 99.907	20
		wCa 40.0104	
		wCO3 59.923	
SRM 917c	D-Glucose (Dextrose)	99.7	50
SRM 920	D-Mannitol	99.8	50
SRM 937	Iron Matal (Clinical)	99.90	50
SRM 928	Lead Nitrate	100.00	30
SRM 924a	Lithium Carbonate	99.867	30
SRM 929a	Magnesium Gluconate	5.362 Mg	5
SRM 918b	Potassium Chloride　(Value %)	wKCl 99.927	30
		wK 52.4121	
		wCl 47.5284	
SRM 919b	Sodium Chloride　(Value %)	wNaCl 99.835	30
		wCl− 60.564	
		wNa+ 39.2747	
SRM 1595	Tripalmitin	99.5	2
SRM 912a	Urea	99.9	25
SRM 913a	Uric Acid	99.6	10
SRM 925	VMA (4-hydroxy-3-methoxy-DL-mandelic acid)	99.4	1

アミノ酸

Amino Acid in 0,1mol/L HCl　SRM 2389　(set)			
Amino Acid	濃度 mmol/L		
Alanine	2.5	Lysine	2.41
Arginine	2.51	Methionine	2.51
Aspartic acid	2.50	Phenylalanine	2.55
Cystine	1.23	Proline	2.46
Glutamic acid	2.50	Serine	2.44
Glycine	2.52	Threonine	2.49
Histidine	2.52	Tyrosine	2.54
Isoleucine	2.44	Valine	2.51
Leucine	2.41		

L-アラニン　CRM6011-a　500mg	
質量分率　%	99.9

L-ロイシン　CRM6012-a　500mg	
質量分率　%	99.7

L-イソロイシン　CRM6013-a　500mg	
質量分率　%	99.7

L-フェニルアラニン　CRM6014-a　500mg	
質量分率　%	99.7

L-バリン　CRM6015-a　500mg	
質量分率　%	99.7

L-プロリン　CRM6015-a　500mg	
質量分率　%	99.9

L-アルギニン　CRM6017-a　500mg	
質量分率　%	99.8

L-リシン一塩酸塩　CRM6018-a　500mg	
質量分率　%	99.8

L-チロシン　CRM6019-a　500mg	
質量分率　%	99.9

L-トレオニン　CRM6020-a　500mg	
質量分率　%	99.9

L-セリン　CRM6021-a　500mg	
質量分率　%	99.1

グリシン　CRM6022-a　500mg	
質量分率　%	99.9

L-ヒスチジン　CRM6024-a　500mg	
質量分率　%	99.9

L-グルタミン酸　CRM6026-a　500mg	
質量分率　%	99.8

L-アスパラギン酸　CRM6027-a　500mg	
質量分率　%	99.9

C-ペプチド　NMIJ　CRM6901-b	
濃度(mg/L):100 C-ペプチド類(C-ペプチド、C-ペプチドの脱アミド類、ピログルタミン化体の混合物)	形状:　1mLのC-ペプチド溶液の凍結乾燥粉末

コレステロール

コレステロール　CRM6001-a　1g	
質量分率　%	99.9　±　0.1

Cholesterol　SRM 911c　2g
純度:99.2% (mass fraction)
5,24-Cholestadiene-3β -ol:　0.72% (mass fraction)

アスコルビン酸

Ascorbic acid (total) in frozen human serum　SRM 970	
Level Ⅰ 10.07 μ mol/L	Level Ⅱ 30.52 μ mol/L

ビタミン

Fat-soluble vitamin and cholesterol in human serum　SRM968e　(set 3)						
保証値:ビタミン・カロテン・コレステロール						
	Level Ⅰ		Level Ⅱ		Level Ⅲ	
	μ g/mL	μ mol/L	μ g/mL	μ mol/L	μ g/mL	μ mol/L
Total Retinol	0.341	1.19	0.482	1.68	0.647	2.26
γ -tocopherol	1.86	4.47	1.432	3.44	2.27	5.45
α -tocopherol	6.53	15.2	10.33	23.98	19.37	45.0
Total Lutein	0.067	0.117	0.097	0.170	0.124	0.218
Total Zeaxanthin	0.031	0.055	0.029	0.052	0.029	0.052
Total β -Cryptoxatin	0.041	0.074	0.040	0.072	0.021	0.037
total-β -carotene	0.099	0.184	0.234	0.436	0.411	0.765
Cholesterol	1467	3794	1585	4099	1811	4683
25-Hydroxyvitamin D	7.09	17.7	12.9	32.2	19.9	49.6
参考値:カロテノイド						
	Level Ⅰ		Level Ⅱ		Level Ⅲ	
	μ g/mL	μ mol/L	μ g/mL	μ mol/L	μ g/mL	μ mol/L
trans-Lycopene	0.135	0.252	0.307	0.571	0.49	0.676
Total-Lycopene	0.234	0.44	0.52	0.97	0.86	1.60
trans-β -Carotene	0.011	0.020	0.031	0.058	0.015	0.028
Total-α -Carotene	0.088	0.164	0.203	0.378	0.363	0.676
情報値:その他の化合物						
	Level Ⅰ		Level Ⅱ		Level Ⅲ	
	μ g/mL	μ mol/L	μ g/mL	μ mol/L	μ g/mL	μ mol/L
σ -Tocopherol	0.09	0.2	0.07	0.2	0.20	0.5
Total α -Cryptoxanthin	0.016	0.03	0.02	0.04	0.015	0.03
Total-cis-β -Carotene	0.005	0.009	0.013	0.02	0.016	0.03
Coenzyme Q10	0.9	1.0	1.0	1.1	1.4	1.7

グルコース

Glucose in frozen human serum　SRM 965b　(unit)		
	mmol/L	mg/dL
level 1	1.836	33.08
level 2	4.194	75.56
level 3	6.575	118.5
level 4	16.35	294.5

コルチゾール

Cortisol (Hydrocortisone)　SRM 921	
純度:98.9%	容量:1g

Corisol in human serum (ampoule)	
ERM-DA 192	ERM-DA 193
98.8 μ gl/L	277 μ gl/L
273 nmol/L	763 nmol/L

The sample is to be reconstituted with (1.25 ± 0.01) mL of distilled water.

ヒドロコルチゾン　CRM6007-a　200mg	
質量分率　%	99.3

クレアチニン

クレアチニン標準物質　NMIJ　RM6005-a　(1g)	質量分率%
	99.9 ± 0.2

Creatinine　SRM 914a　(10g)
純度　:　99.7%

Creatinine in Frozen Human Serum　SRM967a　(2 vials)		
	Concentration Levels	
	mmol/L	mg/dL
Level	0.0749	0.847
Level 2	0.3427	3.877

Creatinine in human serum　容量:各0.09g　単位はμ mol/L		
BCR 573	BCR 574	BCR 575
low 68.7	medium 105.0	high 404.1

BCR 573i (RM) Set of Creatinin interfering substances
- 0.025 mg calcium dobesilate / 1.2mg cefoxitin
- 0.044 mg sodium pyruvate
- 0.108 mg bilirubinditaurate

尿　関係

尿素　　NMIJ CRM6006-a　10g	
質量分率%	99.9　±　0.1　%
	窒素(参考値)：　46.61

尿酸　　NMIJ CRM6008-a　2g	
質量分率%	99.6

人尿　　NIES CRM#18　要冷蔵		
総ヒ素	mg/L	0.137
アルセノベタイン	mg/L as AS	0.069
ジメチルアルシン酸	mg/L as AS	0.036
総セレン	mg/L	0.059
総亜鉛	mg/L	0.62

参考値：

総銅	0.010
総鉛	0.0011

Toxic metals in freeze dried human urine　SRM2670a　(4 x 20mL)　単位はμ g/L		
元素	low level	elevated level
Sb	0.971	0.824
Cd	0.0591	4.862
Ce	1.075	1.085
Co	0.166	51.2
I	88.2	88.2
Pb	0.0663	233.3
Hg	---	95.1
Mn	---	99
Mo	---	114.1
Pt	---	51.5
Se	---	229.5
Tl	0.0162	5.417
Th	0.0053	0.01606
U	0.102	4.997

As, Cr and 1-Hydroxypyrene in lyophilised human urine　vial	
As	23μ g/L
Cr	1.5μ g/L
1-Hydroxy　pyrene	0.62nmol/L

C反応性蛋白溶液　　NMIJ CRM6201-a　2mL	
C反応性蛋白	40.0　±　1.6　μ mol/kg

頭髪　関係

頭髪　NIES#13　3g　単位はμ g/g					
Cu	15.3	Cd	0.23	Pb	4.6
Zn	172	Sb	0.042	Methyl Hg	3.8
Se	1.79	Hg	4.42		

参考値：Na, Mg, Al, S, Ca, V, Mn, Fe, Co, As, Ag, Ba

プロテイン　関係

Human serum Proteins　ERM-DA470K　(ampoule)　単位はg/L			
Albumin	37.2 ±1.2	Immunoglobulin M	0.72 ±0.027
Complement 3c	1 ±0.04	Transferrin	2.36 ±0.08
Complement 4	0.16 ±0.007	Transthyretin	0.22 ±0.018
Haptoglobin	0.89 ±0.021	alpha1-Acid glycoprotein	0.62 ±0.013
Immunoglobulin A	1.8 ±0.05	alpha1-Antitrypsin	1.12 ±0.03
Immunoglobulin G	9.17 ±0.18	alpha2-Macroglobulin	1.43 ±0.06

Major elements in a single cell protein　BCR273　(10g)			
Ca	11.97 g/kg	N	121.6 g/kg
Fe	156mg/kg	P	26.8 g/kg
K	2.22 g/kg		

Indicative values : Mg, N(Kjeldahl), Na, S

Major elements in a single cell protein　BCR274　(10g)					
As	132	Cu	13.1mg/kg	Se	1.03mg/kg
Cd	30	Mn	51.9mg/kg	Zn	42.7
Co	39	Pb	44		

Indicative values : F, I, Ni　　単位の無い値はμ g/g

Haemiglobincyanide(HiCN) in bovine blood lysate　BCR522　(ampo	
Absorbance at 540 nm and 10.00 mm pathlength :	0.5457 ± 0.0009
Mass concentration(mh/L) :	800.3 ± 1.3
Substance concentration (μ mol/L) :	49.61 ± 0.08

Prostate speciic antigen(PSA)　BCR613　(ampoule)	
Protein mass (μ g) / ampoule	70.8 ± 6

Glycated heamoglobin (HnAlc) in human haemolysate(RM)　BCR405　(ampoul	
HbA_{1c} / HB_T in reconstituted material	(6.29%)

Human apolipoprotein　A Ⅰ　　BCR393　　ampoule	
Mass concentration in the reconstituted material	1.06±0.05　g/L

Human apolipoprotein　A Ⅱ　　BCR394　　ampoule
Mass concentration in the reconstituted material: 0.321±0.019　g/L

Human Thyroglobulin (TG)　　BCR457　　(ampoule)	
Human Thyroglobulin (TG)	0.324(g/L)

Purified human alphafoetoprotein　　BCR486　　ampoule	
Protein mass per ampoule	100±9　μ g

thromboplastin

Thromboplasma bovine(OBT/79)　　ERM-AD148　　(ampoule)	
Slope	1.011
Intercept	−0.321

Rabbit thromboplastin　　ERM-AD149　　(ampoule)	
Slope	1.257
Intercept	−0.242

システイン　&　葉酸

Homosystein & Folate　in　Frozen Human Serum　　SRM1955　(set)					
	Homosystein			5-methyltetrahydrofolic	
	μ mol/L	μ g/mL		μ mol/L	μ g/mL
level Ⅰ	3.98	0.538	level Ⅰ	4.26	1.96
level Ⅱ	8.85	1.196	level Ⅱ	9.73	4.47
level Ⅲ	17.7	2.39	level Ⅲ	37.1	17.03

MICROBIOLOGICAL PROPERTIES

Capsiles filled with milk powder artificially contaminated by Bacillus cereus (ATCL9139) BCR528 10 capsules		
Procedure	Number of colony forming particies in one analytical portion[1]	
	Certified valuev[2]	95% confidence limits
MEYP(ISO 7932) after 24h incubatrion	53.4	51.7 – 55.1
MEYP(ISO 7932) after 48h incubatrion	53.7	52.1 – 55.4
PEMBA(L 00.00-25)[3] after 24h incubatr	55.0	52.9 – 57.3
PEMBA(L 00.00-25)[3] after 48h incubatr	55.8	53.5 – 58.0

BCR528 is provided in containers holding 10 gelatine capsules filled with artificially vcontaminated milk powder.

1) Number of colony forming particles of Bacillus cereus determined in one analytical portion.Analytical portion: A volume of (1.00 ± 0.02)mL from 10mL peptone salines solution in which one capsule has been reconstructed.

2)This value is the geometric mean of 11 accepted sets of data, independently obtained by 11 laboratories.

3)German Federal Food method number.

Capsiles filled with milk powder artificially contaminated by Escherichia coil (WR 1 / NCTC 13167) BCR594 10 capsules		
Procedure	Number of colony forming particies in one analytical portion[1]	
	Certified valuev[2]	95% confidence limits
ISO 9308-1, 1990 T7A 30/37	56	48 – 66
ISO 9308-1, 1990 T7A 30/44	49	41 – 59
ISO 9308-1, 1990 T7A 30/37	40	33 – 48
ISO 9308-1, 1990 T7A 30/44	36	29 – 44

BCR594 is provided in containers holding 10 gelatine capsules filled with artificially vcontaminated milk powder.

1) Number of colony forming particles of Escherichia coil determined in one analytical portion.Analytical portion:A volume of (1.00 ± 0.02)mL from 10mL peptone salines solution in which one capsule has been reconstructed.

2)This value is the geometric mean of n accepted sets of data, independently obtained by 7 (LSA) or 9(T7A) laboratories.

Capsiles filled with milk powder artificially contaminated by Listeria monocytogenes (Scott A) (ALM92 / NCTC 13173) BCR595 10 capsules		
Quantity (Test procedure)	Salmonella typhimurium	
	Certified valuev[2]	95% confidence limits
Number of colony forming particules per capsule (enumeration procedure)[1]	7.2[3]	6.8 – 7.6[4]
Fraction of capsules in which no L. monocytogenes could be detected (enumeration procedure)	0.075%	0.050% – 0.11%[5]
Fraction of capsules in which no L. monocytogenes could be detected (presence/ absence procedure according to IDF standard 143)[2]	1.2%	0 – 2.3%[5]

BCR594 is provided in containers holding 10 gelatine capsules filled with artificially vcontaminated milk powder.

1) Based on 11 accepted sets of data (549 capsules.)
2) Based on 12 accepted sets of data (564 capsules.)
3) This value is the aritmetic mean on 11 accepted sets of data independently obtained by 11 labratories
4) Two sided 95% confidence interval.
5) One sided 95% confidence upper limit.

DNA SEQUENCE

CRMs for monitoring leukaemia (ERM-AD623)		
SET OF PLASMID SOLUTIONS		
	Number of specific DNA fragments per plasmid	
	Certified value	Uncertainty
BCR-ABL b3a2 transcript	1	negligible
BCR transcript	1	negligible
GUSB transcript	1	negligible
	Copy number concentration of the plasmid	
	Certified value	Uncertainty
ERM-AD623a	1.08×10^6	0.13×10^6
ERM-AD623b	1.08×10^5	0.13×10^5
ERM-AD623c	1.08×10^4	0.13×10^4
ERM-AD623d	1.08×10^3	0.13×10^3
ERM-AD623e	1.08×10^2	0.13×10^2
ERM-AD623f	10.0	1.5

	IRMM-435 Pharmaceutical glass containers Alkali leaching and release
Volume of titration solution 0.01 mol/L HCl per 50 mL of leachate	0.38　mL
Sodium release per volume of leachate	1.41 mg/L
Release of Na2O per volume of leachate	1.91　mg/L

臨床化学　分析

定量解析用リボ核酸　NMIJ　CRM6204-a		形状
Sample 1 (RNA500-A)	30.6 ng/μ L	合計5試料 1試料に付き300μ L
Sample 2 (RNA500-B)	27.3 ng/μ L	
Sample 3 (RNA500-C)	32.4 ng/μ L	
Sample 4 (RNA1000-A)	58.3 ng/μ L	
Sample 5 (RNA1000-B)	59.5 ng/μ L	

	Description	Purity
BCR546　10mg	Formaldehyde 2,4-dinitrophenylhydrazone	> 0.993
BCR547　10mg	Acetaldehyde 2,4-dinitrophenylhydrazone	0.983
BCR548　10mg	Acrolein 2,4-dinitrophenylhydrazone	> 0.979
BCR549　10mg	Acetone 2,4-dinitrophenylhydrazone	> 0.996
BCR550　10mg	Glutaraldehyde 2,4-dinitrophenylhydrazone	> 0.981

	Autonitrile solution Mass concentration BCR551 set4	Autonitrile solution BCR551 (1sample)
Formaldehyde 2,4-dinitrophenylhydrazone	2.94 μ g/mL	< 0.08 μ g/mL
Acetaldehyde 2,4-dinitrophenylhydrazone	4.89 μ g/mL	< 0.05 μ g/mL
Acrolein 2,4-dinitrophenylhydrazone	0.483 μ g/mL	< 0.04 μ g/mL
Acetone 2,4-dinitrophenylhydrazone	4.96 μ g/mL	< 0.05 μ g/mL

単位はμ g/mL

	Glass fibre filters Spike mass per filter (expressed as μ g formaldehyde) BCR553 2samples	Glass fibre filters Mass per filter (blank) BCR554 1samples
Formaldehyde 2,4-dinitrophenylhydrazone on glass fibre filters	4.96	< 0.1

	Chlorinated hydrocarbons on Tenax BCR555 単位はng
Dichloromethane	315
1,1,1-Trichloroethane	366
Trichloroethylene	388
Perchloroethylene	327
Toluene	56

Stainless steel tube of 9.0cm length and 0.25 inches outer diameter containing a single of 250mg TENAX GR,charged with 4 chlorinated hydrocarbons and toluene at the levels shown above.

	Description	Latex spheres Parameters of the calibration line
BCR165 2mL	Nominal 2 μ m latex (0.02% solids)	2.223
BCR166 2mL	Nominal 4.8 μ m latex (0.2% solids)	4.821
BCR167 2mL	Nominal 9.6 μ m latex (1.4% solids)	9.475

Vial containing 2mL of an aqueous suspension of latex spheres.

トリオレイン NMIJ CRM6009-a 250mg	
質量分率 %	99.4

ホルモン　分析

Cortisol reference panel of fresh frozen human sera ERM-DA451/FCC					
Serum No.	Certified value	Uncertainty	Serum No.	Certified value	Uncertainty
1	361	14	18	146	6
2	432	17	19	166	7
3	288	11	20	83	4
4	152	6	21	89	4
5	329	13	22	180	7
6	278	11	23	387	15
7	515	20	24	384	15
8	163	7	25	315	12
9	287	11	26	215	9
10	230	9	27	497	19
11	334	13	28	299	12
12	261	10	29	265	11
13	430	17	30	114	5
14	626	24	31	764	29
15	246	10	32	623	24
16	211	8	33	264	10
17	366	14	34	390	15

＊As panel of 34 x 1mL serum in screw capped cryo-vials.

	Progesterone in human serum(concentration in the reconstituted materials [1)]	
	μ g/L	nmol/L
ERM-DA347 1mL	3.19	10.13
BCR-348R 1mL	8.5	26.9

1) The sample is to be reconsitituted with (1.0 ± 0.01) mL of distilied water.

＊In units of lyophilised material of a 1mL portion of serum kept under nitrogen in sealed glass ampoules.

17-Bata-Estradiol in hunan serum		
BCR 576 [1)]	BCR 577 [2)]	BCR 578 [2)]
5mL low 0.114	1mL medium 0.689	1mL high 1.34

単位はnmol/L

1) The sample is to be reconstituted with (5.00 ± 0.05)mL of distilled water

2) The sample is to be reconstituted with (1.00 ± 0.01)mL of distilled water

テステステロン　NMIJ　CRM6002-a	
質量分率　%	99.84

プロゲステロン　NMIJ　CRM6003-a	
質量分率　%	99.3

17β - エストラジオール　NMIJ　CRM6004-a	
質量分率　%	98.4

触媒活性　分析

	Description	Catalytic concentration in reconstituted material Certified value	
		U/L	μ kat/L
BCR410　1mL	Prostatic acid phosphatase highly purified,from human prostate 3)	28	0.466
BCR647	Human adenosine deaminase(ADA1),from human		2.55
BCR693　1mL	Human pancreatic lipase from pancreatic juice 5)	1732	28.9
BCR694	Human pancreatic lipase (recombinant)	1043	17.4
ERM-AD452/IFCC	γ -Glutamyltransferase partially purified,from pig kidney 4)	114.1	1.9
ERM-AD453/IFCC	Human lactate dehydrogenase isoenzyme 1 4)	502	8.37
ERM-AD454/IFCC	Alanine aminotransferase partially purified,from pig heart 4)	186	3.09
ERM-AD455/IFCC	Creatin kinase CK-MB from human heart 4)	101	1.68
IRMM/IFCCCC-456	α -Amylose 4)	546	9.1
ERM-AD457/IFCC	Aspartate Transaminase	104.6	1.74

1) According to IFCC recommended method at 30℃
2) According to method specified in report.
3) According to IFCC recommended method at 37℃
4) According to method description in certification report at 37℃

残留獣医薬

Pig liver – Chlortetracycline　BCR695　vial	
Chlortetracycline	< 0.04 mg/kg

Pig liver – Chlortetracycline　BCR696　vial	
Chlortetracycline	0.58 mg/kg

Pig liver – Chlortetracycline　BCR697　vial	
Chlortetracycline	< 0.06 mg/kg

Pig liver – Chlortetracycline　BCR706　vial	
Chlortetracycline	< 0.05 mg/kg

Pig liver – Chlortetracycline　BCR707　vial	
Chlortetracycline	1.30 mg/kg

家畜薬　分析

	Discription	Substance	Hormon in lyophili bovine urine Mass concentration in reconstituted sample (μ g/L)		
BCR386 (1	Bovine Urine	Diethylstilboestrol(DES)	< 0.1		
BCR387 (1	Bovine Urine	Dienoestrol　(DE)	< 0.1		
BCR388 (1	Bovine Urine	Hexoestrol　(HEX)	< 0.1		
BCR389 (1	Bovine Urine	Diethylstilboestrol(DES)	12.8		
BCR390 RM (1	Bovine Urine	Dienoestrol　(DE)	(34)		
BCR391 (1	Bovine Urine	Hexoestrol　(HEX)	13.3		
			Content	Lower 90% limit	Upper 90% limit
BCR502 (2	Bovine Urine	Clenbuterol Salbufamol	< 0.1 < 0.1		
BCR503 (2	Bovine Urine	Clenbuterol Salbufamol	2.5 2.3	2.1 1.7	2.9 3.2
BCR504 (2	Bovine Urine	Clenbuterol Salbufamol	6 5.6	5.5 4.5	6.7 7.5

(1　Units of lyophilised urine equivalent to about 2.0mL in vials sealed under nitrogen.
(2　Units of lyophilised urine equivalent to about 5.0mL in vials sealed under nitrogen.
The reports give additional indicative values for trans-and cis-DES in BCR389

	Description	Substance	Bovine liver Mass concentration
BCR648　10g	Bovine Liver	Clenbuterol	< 0.5
BCR649　10g	Bovine Liver	Clenbuterol	1.2
BCR474　2.8g	Bovine Liver	17-α -trenbolone	< 0.5
BCR475　2.8g	Bovine Liver	17-α -trenbolone	7.6
BCR411　5g	Bovine muscle	Diethylstilboestrol	> 0.5*
BCR412　5g	Bovine muscle	Diethylstilboestrol	< 0.1*
BCR673　0.1g	Bovine Eye	Clenbuterol	< 0.5
BCR674　0.1g	Bovine Eye	Clenbuterol	9

＊μ g/L

	Porcine muscle (blank)　BCR	Porcine muscle ERM-BB130　(7g)	Porcine muscle (incurred) BCR　445　(7g)
Chloamphenicol	< 0.2	0.230	8.9

単位はμ g/kg

	Milk Powder　BCR492 (10mL)	Milk Powder　BCR493 (10mL)
Oxytetracycline	307	< 10

	Milk Powder ERM-BB492　(5.5g)	Milk Powder ERM-BB493　(5.5g)
Sun of oxytetracycline 4-epi-oxytetracycline	101	< 5

単位はμ g/kg