

# APPLICATION NOTE

## HITACHI 704

### $\alpha$ 1-ANTITRYPSIN SD (AUT-KIT)

#### 1. Reagent preparation

Sample: Dilute 1:20 in 9 g/L NaCl

Calibration: Dilute Protein Standard High 1:20, 1:40, 1:80 and 1:160 in 9 g/L NaCl to set up a calibration curve. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

#### 2. Instrument setting

TEST	AAT
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL ( $\mu$ L)	10
R1 VOLUME ( $\mu$ L)	250 - 50 - NO
R2 VOLUME ( $\mu$ L)	20 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	92 - 200
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

AAT/AUT-000 1 x 10 mL Antiserum

5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
 **$\alpha$ 1-ACID GLYCOPROTEIN SD (AUT-KIT)**

**1. Reagent preparation**

Sample: Dilute 1:20 in Saline 9 g/L

Calibration: Dilute Protein Standard High 1:20, 1:40, 1:80 and 1:160 in 9 g/L NaCl to set up a calibration curve. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

**2. Instrument setting**

TEST	AGP
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL ( $\mu$ L)	20
R1 VOLUME ( $\mu$ L)	230 - 50 - 0
R2 VOLUME ( $\mu$ L)	30 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	40 - 130
INSTRUMENT FACTOR	1.00

\* concentration of calibrator

\*\* Data entered by operator

**3. Order information**

AGP/AUT-000 1 x 10 mL antiserum

5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgA KIT**  
2<sup>nd</sup> GENERATION

**1. Reagent preparation**

Sample: Dilute 1:10 in Saline 9 g/L  
 Calibration: Dilute Protein Standard High 1:10, 1:20, 1:40 and 1:80 in 9 g/L in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCL as zero point.  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGA2
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	10
R1 VOLUME (µL)	240 - 50 - 0
R2 VOLUME (µL)	20 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	70 - 410
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

104C002            1 x 10 mL Antiserum  
                       5 x 25 mL Buffer  
 MPS/STH-001     Protein Standard High , 1 mL  
 139F003           Immunology Control Low, 1mL  
 139F002           Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgG SD (AUT-KIT)**

**1. Reagent preparation**

Sample: Dilute 1:10 in Saline 9 g/L

Calibration: Dilute Protein Standard High 1:10, 1:20, 1:40 and 1:80 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: **Do not use the buffer(0.5% PEG) of the AUT-Kit, but use a 4% PEG buffer**

R1: Buffer

R2: Antiserum

**2. Instrument setting**

TEST	IGG
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	4
R1 VOLUME (µL)	250 - 50 - 0
R2 VOLUME (µL)	20 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	690 - 1400
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

IGG/AUT-000 1 x 10 mL Antiserum

5 x 25 mL Buffer

**PG4/BUF-100 4% PEG Buffer , 100 mL**

MPS/STH-001 Protein Standard High , 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgG 2<sup>ND</sup> GENERATION**

**1. Reagent preparation**

Sample: Dilute 1:10 in Saline 9 g/L  
 Antiserum: Ready for use  
 Buffer: Ready for use  
 Calibration: Dilute Protein Standard High 1:10, 1:20, 1:40, 1:80 and 1:160 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCl as zero point.

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGG
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	5
R1 VOLUME (µL)	250 - 50 - 0
R2 VOLUME (µL)	25 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	** - **
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

105C003 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High, 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgM KIT**  
2<sup>nd</sup> GENERATION

**1. Reagent preparation**

Sample: Dilute 1:10 in Saline 9 g/L  
 Calibration: Dilute Protein Standard High 1:10, 1:20, 1:40 and 1:80 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCl as zero point.  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGM2
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	16
R1 VOLUME (µL)	240 - 50 - 0
R2 VOLUME (µL)	30 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	34 - 250
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

106C002            1 x 10 mL Antiserum  
                       5 x 25 mL Buffer  
 MPS/STH-001     Protein Standard High , 1 mL  
 139F003           Immunology Control Low, 1mL  
 139F002           Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**TRANSFERRIN SD (SEL – KIT)**

**1. Reagent preparation**

Sample: Dilute 1:20 in Saline 9 g/L  
 Calibration: Dilute Protein Standard High 1:20, 1:40, 1:80, 1:160 and 1:320 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCl as zero point.  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	TRF
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	3
R1 VOLUME (µL)	250 - 50 - 0
R2 VOLUME (µL)	10 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	170 - 340
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

TRF/SEL-000 1 x 5 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High, 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5 x 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### $\alpha$ 1-ANTITRYPSIN N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use

Calibration: Dilute Protein Standard High successively 1:2 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaClas zero point. Alternatively, use the ready for use Protein Standard Set.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

#### 2. Instrument setting

TEST	AAT
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL ( $\mu$ L)	2
R1 VOLUME ( $\mu$ L)	350 - 50 - NO
R2 VOLUME ( $\mu$ L)	70 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	92 - 200
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

AAT/AUT-000 1 X 10 mL Antiserum

5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

MPS/STS-5X1 Protein Standard Set, 5 x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL



APPLICATION NOTE  
HITACHI 704  
 **$\alpha$ 1-ACID GLYCOPROTEIN N-DIL(AUT-KIT)**

**1. Reagent preparation**

Sample: Ready for use

Calibration: Dilute Protein Standard High successively 1:2 in saline 9 g/L to set up a calibration curve.  
Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

**2. Instrument setting**

TEST	AGP
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL ( $\mu$ L)	2
R1 VOLUME ( $\mu$ L)	400 - 50 - 0
R2 VOLUME ( $\mu$ L)	50 -20 - 0
WAVELENGTH	700 – 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 – 1
STD 2 CONC. POS.	* _ **
STD 3 CONC. POS.	* _ **
STD 4 CONC. POS.	* _ **
STD 5 CONC. POS.	* _ **
STD 6 CONC. POS.	* _ **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 – INCREASE
PROZON LIMIT	-32000 – LOWER
EXPECTED VALUE	40 – 130
INSTRUMENT FACTOR	1.00

\* concentration of calibrator

\*\* Data entered by operator

**3. Order information**

AGP/AUT-000 1 x 10 mL antiserum  
5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

MPS/STS-5X1 Protein Standard Set, 5 x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### ASL(O) N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use  
 Calibrator: Ready for use  
 Latex: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Latex

#### 2. Instrument setting

TEST	ASL
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	3
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	50 - 20 - NO
WAVELENGTH	700 - 570
CALIB. METHOD	LINEAR [0] - [0]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	0 - 0
STD 4 CONC. POS.	0 - 0
STD 5 CONC. POS.	0 - 0
STD 6 CONC. POS.	0 - 0
UNIT	IU/mL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	0 - 200
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

ASL/AUT-000 1 x 10 mL Latex  
 5 x 25 mL Buffer  
 ASL/STH-001 ASL Standard High , 1 mL  
 ASL/CON-001 ASL Control, 1 mL  
 ASL/CON-005 ASL Control, 5 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### Complement C3 N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use  
 Calibration: Set up a calibration curve by successive 1:2 dilutions of Protein Standard High in saline 9 g/L. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

#### 2. Instrument setting

TEST	C3
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	35 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	75 - 135
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

C3C/AUT-000 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High , 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5x1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### Complement C4 N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use  
 Calibration: Set up a calibration curve by successive 1:2 dilutions of Protein Standard High in saline 9 g/L. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

#### 2. Instrument setting

TEST	C4
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	4
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	30 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [5]
STD 1 CONC. POS.	0.0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	0 - 0
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	9 - 36
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

C4C/AUT-000 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High , 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5 x 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

# CERULOPLASMIN N-DIL (AUT-KIT)

### 1. Reagent preparation

Sample: Ready for use

Calibration: Set up a calibration curve by successive 1:2 dilutions of Protein Standard High in saline 9 g/L. Alternatively use the ready for use Protein Standard Set. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

### 2. Instrument setting

TEST	CER
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	30 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	22 - 61
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

### 3. Order information

CER/AUT-000 1 x 10 mL Antiserum

5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

MPS/STS-5X1 Protein Standard Set, 5 x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**C-Reactive Protein N-DIL (AUT-KIT)**

**1 Reagent preparation**

Sample : Ready for use  
 Calibration : Dilute CRP standard High successively 1:2 in saline 9g/L in order to set up a calibration curve .Alternatively use the ready for use CRP Standard Set. Use 9 g/L NaCl as zero point.  
 Antiserum : Ready for use  
 Buffer : Ready for use

R1 : Buffer  
 R2 : Antiserum

**2. Instrument setting**

TEST	CRP
ASSAY CODE	[2 points] : [15] - [32]
SAMPLE VOL (µL)	15
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	25 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NONLINEAR [4] - [6]
STD 1 CONC. POS.	0.00 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	0 - 1.00
INSTRUMENT FACTOR	1.00

**3. Order information**

CRP/AUT-000 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 CRP/STH-001 CRP Standard High, 1 mL  
 CRP/STS-5X1 CRP Standard set, 5 x 1 mL  
 CRP/COL-001 CRP Control Low, 1 mL  
 CRP/COH-001 CRP Control High, 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**RHEUMATOID FACTOR N-DIL (AUT-KIT)**  
**(LATEX METHOD)**

**1. Reagent preparation**

Sample: Ready for use

Calibration: Set up a calibration curve by successive 1:2 dilutions of the RF Standard High in saline 9 g/L. Use 9 g/L NaCl as zero point.

Latex: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Latex

**2. Instrument setting**

TEST	RHF
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	350 - 50 - NO
R2 VOLUME (µL)	30 - 20 - NO
WAVELENGTH	700 - 570
CALIB. METHOD	NONLINEAR [1] - [4]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* _ **
STD 3 CONC. POS.	* _ **
STD 4 CONC. POS.	* _ **
STD 5 CONC. POS.	0 - 0
STD 6 CONC. POS.	0 - 0
UNIT	IU/mL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	0 - 50
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

RF2/AUT-000            1 x 10 mL Latex  
                                 5 x 25 mL Buffer

RHF/STH-001    RF Standard High , 1 mL

RHF/CON-001    RF Control, 1 mL

RHF/CON-005    RF Control, 5 mL

APPLICATION NOTE  
HITACHI 704  
**HAPTOGLOBIN N-DIL (AUT-KIT)**

**1. Reagent preparation**

Sample: Ready for use

Calibration: Set up a calibration curve by successive 1:2 dilutions of Protein Standard High in saline 9 g/L. Alternatively use the ready for use Protein Standard Set. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

**2. Instrument setting**

TEST	HAP
ASSAY CODE	[2 points] : [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	280 - 50 - NO
R2 VOLUME (µL)	40 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	34 - 200
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

HAP/AUT -000 1 x 10 mL Antiserum

5 x 25 mL Buffer

MPS/STH-001 Protein Standard High , 1 mL

MPS/STS-5x1 Protein Standard Set, 5x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL



APPLICATION NOTE  
HITACHI 704  
**IgA 2<sup>ND</sup> GENERATION**

**1. Reagent preparation**

Sample: Ready for use  
 Antiserum: Ready for use  
 Buffer: Ready for use  
 Calibration: Dilute Protein Standard High successively 1:2 in 9 g/L NaCl to set up a calibration curve. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGA
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	350 - 50 - 0
R2 VOLUME (µL)	60 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	** - **
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

104C002 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High, 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5 x 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgG N-DIL (AUT-KIT)**

**1. Reagent preparation**

Sample: Ready for use  
 Antiserum: Ready for use  
 Buffer : Ready for use  
 Calibration: Dilute Protein Standard High successively 1:2 in 9 g/L NaCl to set up a calibration curve. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGG
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	330 - 50 - 0
R2 VOLUME (µL)	75 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [1] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	690 - 1400
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

IGG/AUT-000 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High , 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5 x 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

APPLICATION NOTE  
HITACHI 704  
**IgM 2<sup>ND</sup> GENERATION**

**1. Reagent preparation**

Sample: Ready for use  
 Antiserum: Ready for use  
 Buffer: Ready for use  
 Calibration: Dilute Protein Standard High successively 1:2 in 9 g/L NaCl to set up a calibration curve. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.

R1: Buffer  
 R2: Antiserum

**2. Instrument setting**

TEST	IGM
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	2
R1 VOLUME (µL)	350 - 50 - 0
R2 VOLUME (µL)	50 - 20 - 0
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	32000 - INCREASE
PROZON LIMIT	-32000 - LOWER
EXPECTED VALUE	** - **
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

106C002 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MPS/STH-001 Protein Standard High, 1 mL  
 MPS/STS-5X1 Protein Standard Set, 5 x 1 mL  
 139F003 Immunology Control Low, 1mL  
 139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

# MICROALBUMIN KIT

## 2<sup>nd</sup> Generation

### 1. Reagent preparation

Sample: Centrifuged urine, ready for use  
 Calibration: Dilute the Microalbumin Standard successively 1:2 in 0.9 g % NaCl in order to set up a calibration curve. Alternatively use the ready for use Microalbumin Standard Set. Use 9 g/L NaCl as zero point  
 Antiserum: Ready for use  
 Buffer: Ready for use

R1: Buffer  
 R2: Antiserum

### 2. Instrument setting

TEST	MALB
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	16
R1 VOLUME (µL)	250 - 50 - NO
R2 VOLUME (µL)	40 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* _ **
STD 3 CONC. POS.	* _ **
STD 4 CONC. POS.	* _ **
STD 5 CONC. POS.	* _ **
STD 6 CONC. POS.	* _ **
UNIT	mg/L
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	0 - 25
INSTRUMENT FACTOR	1.00

\* Concentration of calibrator  
 \*\* Data entered by operator

### 3. Order information

102C002 1 x 10 mL Antiserum  
 5 x 25 mL Buffer  
 MAL/STD-001 Microalbumin Standard, 1 mL  
 MAL/STS-5x1 Microalbumin Standard Set, 5x1 mL  
 MAL/CON-001 Microalbumin Control, 1 mL  
 MAL/CON-005 Microalbumin Control, 5 mL

APPLICATION NOTE  
HITACHI 704  
**PREALBUMIN N-DIL (AUT-KIT)**

**1. Reagent preparation**

Sample: Ready for use

Calibration: Dilute Protein Standard High successively 1:2 in saline 9 g/L to set up a calibration curve. Use 9 g/L NaCl as zero point. Alternatively, use the ready for use Protein Standard Set.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

**2. Instrument setting**

TEST	PAL
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	3
R1 VOLUME (µL)	250
R2 VOLUME (µL)	35
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	2000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	0 - LOWER
EXPECTED VALUE	21 - 41
INSTRUMENT FACTOR	1.000

\* Concentration of calibrator

\*\* Data entered by operator

**3. Order information**

PAL/AUT-000	1 x 10 mL Antiserum
	5 x 25 mL Buffer
MPS/STH-001	Protein Standard High , 1 mL
MPS/STS-5x1	Protein Standard Set, 5x1 mL
139F003	Immunology Control Low, 1mL
139F002	Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### TRANSFERRIN N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use

Calibration: Transferrin Standard Set, ready for use. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

#### 2. Instrument setting

TEST	TRF
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	3
R1 VOLUME (µL)	300 - 50 - NO
R2 VOLUME (µL)	30 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	32000 - UPPER
EXPECTED VALUE	170 - 340
INSTRUMENT FACTOR	1.0

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

TRF/AUT-000 1 x 10 mL Antiserum

5 x 25 mL Buffer

TRF/STS-5X1 Transferrin Standard Set, 5 x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL

# APPLICATION NOTE

## HITACHI 704

### TRANSFERRIN N-DIL (AUT-KIT)

#### 1. Reagent preparation

Sample: Ready for use

Calibration: Transferrin Standard Set, ready for use. Use 9 g/L NaCl as zero point.

Antiserum: Ready for use

Buffer: Ready for use

R1: Buffer

R2: Antiserum

#### 2. Instrument setting

TEST	TRF
ASSAY CODE	[2 points]: [15] - [32]
SAMPLE VOL (µL)	3
R1 VOLUME (µL)	300 - 50 - NO
R2 VOLUME (µL)	30 - 20 - NO
WAVELENGTH	700 - 340
CALIB. METHOD	NON LINEAR [4] - [6]
STD 1 CONC. POS.	0 - 1
STD 2 CONC. POS.	* - **
STD 3 CONC. POS.	* - **
STD 4 CONC. POS.	* - **
STD 5 CONC. POS.	* - **
STD 6 CONC. POS.	* - **
UNIT	mg/dL
SD LIMIT	999
DUPLICATE LIMIT	1000
SENSITIVITY LIMIT	0
ABS. LIMIT (INCR./DECR.)	0 - INCREASE
PROZON LIMIT	32000 - UPPER
EXPECTED VALUE	170 - 340
INSTRUMENT FACTOR	1.0

\* Concentration of calibrator

\*\* Data entered by operator

#### 3. Order information

TRF/AUT-000 1 x 10 mL Antiserum

5 x 25 mL Buffer

TRF/STS-5X1 Transferrin Standard Set, 5 x 1 mL

139F003 Immunology Control Low, 1mL

139F002 Immunology Control High, 1 mL