

## General Information

### Intended use:

**Transferrin Turbilatex® Combo** is a latex turbidimetric assay **only for the quantitative detection of Transferrin E1 in human stool samples** (not to be used for body fluid as blood, serum, plasma, urine, cerebrospinal fluid, oral fluid, synovial fluid or empyema fluid).

This assay is simple and widely applicable. This product is optimized for several automated analyser.

For professional *in vitro* diagnostic use only.

### Reagents:

#### Materials provided by CerTest Biotec:

Reagents	Code
Turbidimetric reagents (R1 & R2)	TL-022TF01 TL-022TF02
<b>Auxiliary Reagents</b>	
Calibration kit	TL-022TF70, TL-022TF71 TL-022TF72 TL-022TF73 TL-022TF74 TL-022TF75
Controls kit	TL-022TF08 TL-022TF09
Sample dilutions vials	MST-0019U

#### Preparation of reagents: .

R1 and R2 are ready to use.

Calibrators are ready to use.

Controls are ready to use

#### Storage and stability:

Kit components must be stored at temperature indicated on the label. Do not freeze.

Reagents are stable up to the expiration date printed on the label, always considering that reagent containers must be properly closed to avoid any contamination, must be kept away from the sunlight and conserved at temperature indicated on the label of each reagent.

#### Specimen:

Collect enough quantity of human solid stool samples. These samples should be collected in clean and dry containers (no preservatives or transport media). The samples can be stored in the refrigerator (2-8°C) for 3 days prior to testing. If not immediately tested, freeze the stored samples at -20 °C maximum 6 months. In this case, the sample will be totally thawed, and brought to room temperature (15-30°C) before

testing. Homogenize stool samples as thoroughly as possible prior to preparation.

Use **Transferrin Turbilatex® Combo** stool collection tubes for sample collections described the instructions for use.

#### Assay procedure

**Transferrin Turbilatex® Combo** can be performed on every open chemistry analyser. Please follow the subsequent instructions in order to assure performance characteristics as describes in the instructions for use. This instruction has been validated by CerTest BIOTEC S.L Laboratories.

Additionally, please read the "Instructions for use" for instructions on operating and programming user defined test.

#### Application parameter set up:

Specific analyzers settings for **Transferrin Turbilatex® Combo** must be programmed onto the analyzer, see below. For instructions, consult the TC220 (Tecom) analyzer manual and instructions for use provided with the kit.

#### Loading of reagents:

Load reagents according to the TC220 (Tecom) analyzer manual.

#### Calibration curve establishment:

A 6-points calibration curve can be established in TC220 (Tecom) analyzer. For instructions consult analyzer manual.

#### Calibration stability:

Calibrate the system at least once a month is extremely recommended. Recalibrate the system when reagent lot is change or when the controls are out of the assigned range given in the control label and CoA.

#### QC controls:

**Transferrin Turbilatex® Combo** controls C1 and C2 must be assayed each day before running patient fecal sample extract to validate the calibration curve. The controls have assigned value ranges indicated on the label and certificate of analysis supplied. The control measurements must be within the indicated value range to obtain valid results for patient fecal extract. If the control values are out of range, follow next procedures: 1) Repeat QC control measurement, 2) Repeat calibration measurement.

#### Results:

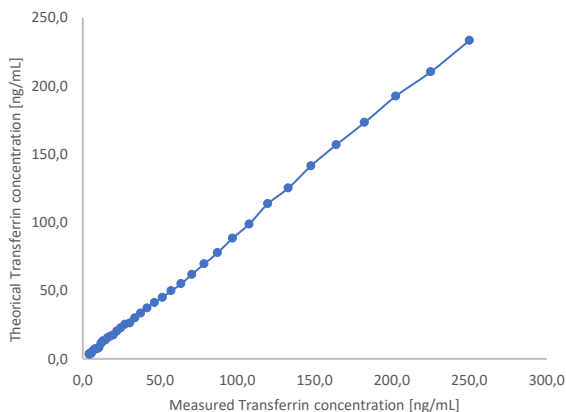
The results are evaluated automatically by the analyzer and presented in ng hTf/mL.

### Performance characteristics (\*)

The following results have been obtained during the validation of **Transferrin Turbilatex® Combo** on the TC220 (Tecom) analyzer.

#### Linearity:

**Transferrin Turbilatex® Combo** using calibrator kit is linear in the calibration range of 3.7-250 ng hTf/mL.



#### Measuring range:

**Transferrin Turbilatex® Combo** assay measuring range is 2-1250 ng hTf/mL. Samples higher concentrated than 250 ng hTf/mL must be diluted for proper quantification by the user, using additional sample buffer.

#### Prozone effect:

Studies have been made up to a concentration of 10000 ng hTf/mL and no false negative results have been observed. Studies using higher concentrations have not been carried out. Samples with concentrations up to 1250 ng hTf/mL can be measured without inhibitory prozone effect.

#### Detection limit:

**Limit of detection (LOD):** 1.4 ng hTf/mL. The lower limit of detection of **Transferrin Turbilatex® Combo** was determined on 20 samples and 2 sample replicates as the mean value + 2 SD.

**Limit of quantification (LOQ):** 2 ng hTf/mL. The lower limit of quantification is defined as the lowest actual amount of analysis that can be reliably detected; imprecision is < 20% as CV%.

#### Precision:

**Transferrin Turbilatex® Combo** was tested with three different controls levels.

	Low (15 ng/mL)	Medium (80 ng/mL)	High (200 ng/mL)
N	20	20	20
Mean (µg/g)	15.3	82.1	202.5
SD (µg/g)	1.6	4.8	11.6
CV (%)	10.4	5.8	5.7

#### Method comparison

Results obtained with **Transferrin Turbilatex® Combo** on the analyser Biolis 24i (Tokyo Boeki) were compared with an immnochromatographic test (CerTest Transferrin, CerTest).

The results were as follows:

Transferrin Turbilatex® vs CerTest Transferrin		
	Mean Value	95% confidence interval
Sensitivity	94.7%	82.3-99.4
Specificity	100.0%	90.3-100.0%
PPV	100.0%	89.1-100.0%
NPV	94.1%	80.3-99.3%
LR+	61.77	3.941-968.1
LR-	0.065	0.02-0.216

#### Shipping damage

Please notify your distributor, if this product was received damaged.

#### Symbols key

IVD	For in vitro diagnostic use only		Keep dry
i	Consult instructions for use		Temperature limitation
REF	Catalogue number	LOT	Lot number
	Use by		Manufacturer
n	Contains sufficient for <n> test	DIL	Sample diluent
	Keep out of the sunlight		

#### Manufacturer

##### CERTEST BIOTEC

Pol. Industrial Río Gállego II, Calle J, Nº 1, 50840,  
San Mateo de Gállego, Zaragoza (SPAIN)  
www.certest.es

#### NOTES

Please refer to the instructions for use for the detailed information about the test on the following:

**Synthesis; Principle; Precautions; Reagents; Specimen collection; Interpretation of results.**

(\*) Analytical performance data were obtained with the Biolis 24 i(Tokyo Boeki) analyser.

TC220 (Tecom)/ Application parameters

<b>ASSAY PARAMETERS</b>	
Std. No	6
R1	200 µL
Sample	30 µL
R2	55 µL
Others	N/A
Reaction mode	Two points
Primary wavelength	546 nm
Secondary wavelength	None
Direction	Increase
Reagent blank lecture (cycle)	10 s after R2 addition
Final lecture (cycle)	300 s after R2 addition
Reaction time	close to 10 min
Linear range	3.7-250 ng/mL
<b>CALIBRATION</b>	
Calibration Method	Linear
Calibration set	5 calibrators + Blank
Blank	Calibrator 0 (0 ng/mL)
Calibrator 1	Calibrator 1 (10 ng/mL)
Calibrator 2	Calibrator 2 (25 ng/mL)
Calibrator 3	Calibrator 3 (50 ng/mL)
Calibrator 4	Calibrator 4 (100 ng/mL)
Calibrator 5	Calibrator 5 (250 ng/mL)
<b>STEPS</b>	
Addition R1	0 s
Addition Sample	120 s
Incubation R1+S	120-180 s
Addition R2	220 s
Blank Lecture	
Incubation reaction	close to 300 sec
Final lecture	