

## General Information

### Intended use:

**Pancreatic Elastase Turbilatex® Combo** is a latex turbidimetric assay **only for the quantitative detection of Pancreatic Elastase 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 Biotech:

| Reagents                         | Code                                                                              |
|----------------------------------|-----------------------------------------------------------------------------------|
| Turbidimetric reagents (R1 & R2) | TL-022EL01<br>TL-022EL02                                                          |
| Auxiliary Reagents               |                                                                                   |
| Calibration kit                  | TL-022EL70,<br>TL-022EL71<br>TL-022EL72<br>TL-022EL73<br>TL-022EL74<br>TL-022EL75 |
| Controls kit                     | TL-022EL08<br>TL-022EL09                                                          |
| 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 7 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 **Pancreatic Elastase Turbilatex® Combo** stool collection tubes for sample collections described the instructions for use.

### Assay procedure

**Pancreatic Elastase 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 **Pancreatic Elastase Turbilatex® Combo** must be programmed onto the analyzer, see below. For instructions, consult the BA 400 (Biosystems) analyzer manual and instructions for use provided with the kit.

### Loading of reagents:

Load reagents according to the BA 400 (Biosystems) analyzer manual.

### Calibration curve establishment:

A 6-points calibration curve can be established in BA 400 (Biosystems) 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:

**Pancreatic Elastase 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:

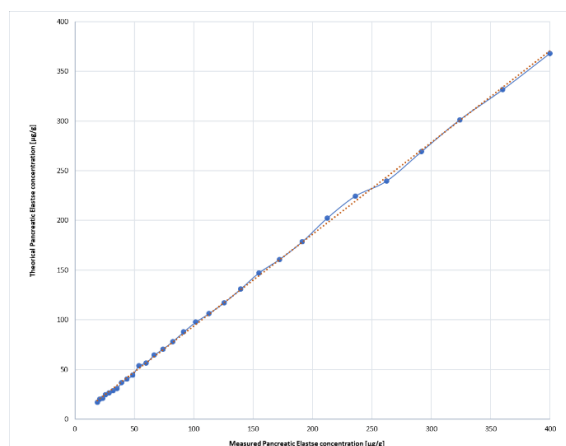
The results are evaluated automatically by the analyzer and presented in µg hEL/g of stool.

### Performance characteristics (\*)

The following results have been obtained during the validation of **Pancreatic Elastase Turbilatex® Combo** on the BA 400 (Biosystems) analyzer.

#### Linearity:

**Pancreatic Elastase Turbilatex® Combo** using calibrator kit is linear in the calibration range of 18.8-400 µg hEL/g of stool.



#### Measuring range:

**Pancreatic Elastase Turbilatex® Combo** assay measuring range is 5.3-625 µg hEL/g of stool. Samples more concentrated than 400 µg hEL/g of stool 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 µg hEL/g of stool and no false negative results have been observed. Studies using higher concentrations have not been carried out. Samples with concentrations up to 625 µg hEL/g of stool can be measured without inhibitory prozone effect.

#### Detection limit:

**Limit of detection (LOD):** 1.07 µg hEL/g of stool. The lower limit of detection of **Pancreatic Elastase Turbilatex® Combo** was determined on 20 samples and 2 sample replicates as the mean value +2· SD.

**Limit of quantification (LOQ):** 5.3 µg hEL/g of stool. 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:

Pancreatic Elastase Turbilatex was tested with three different controls levels.

|             | Low<br>(25 µg/g) | Medium<br>(100 µg/g) | High<br>(400 µg/g) |
|-------------|------------------|----------------------|--------------------|
| N           | 20               | 20                   | 20                 |
| Mean (µg/g) | 25.0             | 101.9                | 390.6              |
| SD (µg/g)   | 0.8              | 1.7                  | 9.4                |
| CV (%)      | 3                | 2                    | 2                  |

#### Method comparison

The following tables provide information on the summary of the evaluations that have been carried out on the product **Pancreatic Elastase Turbilatex® Combo** with a cut-off of 200 µg of hEL/g of stool:

| Pancreatic Elastase Turbilatex® vs Evaluation criteria |            |                         |
|--------------------------------------------------------|------------|-------------------------|
|                                                        | Mean Value | 95% confidence interval |
| Sensitivity                                            | 89.1%      | 77.8-95.9%              |
| Specificity                                            | 98.4%      | 94.4-99.8%              |
| PPV                                                    | 96.1%      | 86.5-99.5%              |
| NPV                                                    | 95.4%      | 90.2-98.3%              |
| LR+                                                    | 56.13      | 14.15-222.7             |
| LR-                                                    | 0.111      | 0.052-0.236             |

#### Shipping damage

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

#### Symbols key

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

#### Manufacturer

##### CERTEST BIOTEC

Pol. Industrial Río Gállego II, Calle J, N° 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.

## BA 400, Biosystems/ Application parameters

| ASSAY PARAMETERS              |                         |
|-------------------------------|-------------------------|
| Std. No                       | 6                       |
| R1                            | 220 µL                  |
| Sample                        | 5 µL                    |
| R2                            | 25 µL                   |
| Others                        | N/A                     |
| Reaction mode                 | Fixed time bi-reagent   |
| Primary wavelength            | 505 nm                  |
| Secondary wavelength          | None                    |
| Direction                     | Increase                |
| Reagent blank lecture (cycle) | 67 cycle                |
| Final lecture (cycle)         | 100 cycle               |
| Reaction time                 | close to 10 min         |
| Linear range                  | 18.8-400 µg/g           |
| CALIBRATION                   |                         |
| Calibration Method            | Polygonal               |
| Calibration set               | 5 calibrators + Blank   |
| Blank                         | Calibrator 0 (0 µg/g)   |
| Calibrator 1                  | Calibrator 1 (25 µg/g)  |
| Calibrator 2                  | Calibrator 2 (50 µg/g)  |
| Calibrator 3                  | Calibrator 3 (100 µg/g) |
| Calibrator 4                  | Calibrator 4 (200 µg/g) |
| Calibrator 5                  | Calibrator 5 (400 µg/g) |
| STEPS                         |                         |
| Addition R1                   | 1 cycle                 |
| Addition Sample               | 31 cycle                |
| Incubation R1+S               | 120-180 s               |
| Addition R2                   | 66 cycle                |
| Blank Lecture                 | 67 cycle                |
| Incubation reaction           | close to 300 sec        |
| Final lecture                 | 100 cycle               |