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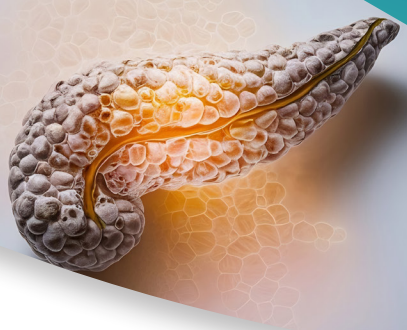

Turbilatex®

Pancreatic elastase:
a non-invasive biomarker of pancreatic exocrine function

Pancreatic exocrine function

Pancreatic elastase is an enzyme produced by the acinar cells of the pancreas and released into the gastrointestinal tract as part of pancreatic function. **Reduced levels of pancreatic elastase in the gastrointestinal tract are associated with pancreatic insufficiency**, which may occur as a consequence of progressive pancreatic damage related to several pathological conditions.

Human pancreatic elastase 1 (E1) **remains largely undegraded during intestinal transit**, allowing its concentration to be assessed in faecal samples. This characteristic makes faecal pancreatic elastase a suitable non-invasive biomarker for the evaluation of pancreatic function.

Unlike invasive procedures, faecal pancreatic elastase measurement provides information on pancreatic function through a simple stool sample. Decreased faecal pancreatic elastase levels can therefore help reveal pancreatic insufficiency and support the assessment of patients in whom impaired pancreatic function is suspected.

Pancreatic Elastase Turbilatex® provides a quantitative faecal determination based on monoclonal antibody detection. The assay is supplied as a liquid, ready-to-use format, offers a long shelf-life and can be adapted to different analysers.

These characteristics make faecal pancreatic elastase determination a practical, non-invasive approach for assessing pancreatic function, combining the biological stability of pancreatic elastase during intestinal transit with the advantages of quantitative automated testing.

Clinical significance & applications

- Faecal pancreatic elastase-1 (FE-1) is widely used as a **non-invasive marker of exocrine pancreatic function** and as an initial test when pancreatic exocrine insufficiency (PEI) is suspected.
- Reduced FE-1 levels are associated with conditions such as **chronic pancreatitis, cystic fibrosis, pancreatic cancer and pancreatic surgery**, supporting the assessment of pancreatic exocrine function in routine clinical practice.

CAUSE

- Reduced pancreatic enzyme secretion due to impaired exocrine pancreatic function.
- Pancreatic elastase remains stable during intestinal transit.
- Progressive pancreatic damage may lead to reduced faecal elastase levels.

EFFECT / CLINICAL RELEVANCE

- Low faecal pancreatic elastase is associated with pancreatic exocrine insufficiency (PEI).
- Non-invasive assessment of exocrine pancreatic function.
- Normal elastase levels make significant PEI less likely.

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Your Laboratory Solutions for Pancreatic Elastase

Turbidimetric Pancreatic Elastase Assay
(PETIA - Particle-Enhanced Turbidimetric Immunoassay)

A particle-enhanced turbidimetric immunoassay (PETIA) for the quantitative determination of pancreatic elastase in human faeces, suitable for open-channel chemistry analysers:

- Cost-efficient option for labs already equipped with turbidimetric platforms.
- Good throughput and precision, offering quantitative measurement of pancreatic elastase.
- Provides flexible access to pancreatic elastase testing without exclusive immunoassay equipment.
- Compatible with existing automated analyser platforms and integrates into gastrointestinal testing panels/workflows.
- Other complementary assays available using the same stool sample tube: Calprotectin, FOB-FIT, and Transferrin.

Pancreatic Elastase Turbilatex® Combo is a non-invasive immunological assay which quantifies pancreatic elastase present in human faeces. This simple test provides information about pancreatic exocrine function and supports the assessment of pancreatic insufficiency.

Product specifications

Sensitivity (%)	89.1 (1)
Specificity (%)	98.4 (1)
Cut-off value (in dilution)	2 µg/mL
Cut-off value (in faeces)	200 µg/g
Main interferences	None (2)

Cut-off value can be modified according to laboratory needs.

(1) *Results obtained by comparison with similar products available on the market.*

(2) *None identified in the analyses performed.*

Pancreatic exocrine function based on faecal elastase levels:
- ≥ 200 µg/g: Normal
- 100 – < 200 µg/g: Reduced
- < 100 µg/g: Severely reduced

References	Description
TL-022EL100ED	**Pancreatic Elastase Turbilatex® Combo** (kit 100 det.) (3)
TL-022EL200ED	**Pancreatic Elastase Turbilatex® Combo** (kit 200 det.) (3)
TL-022EL400ED	**Pancreatic Elastase Turbilatex® Combo** (kit 400 det.) (3)
TL-022EL800ED	**Pancreatic Elastase Turbilatex® Combo** (kit 800 det.) (3)
MST-0019UR	**Universal Turbilatex®** Sample Collection Vial.

(3) *The number of determinations may vary depending on the analyser used. Optimized value for Biolis 24i.*

Quantification of faecal pancreatic elastase is one of the parameters used in the assessment of pancreatic exocrine function and the detection of pancreatic insufficiency.

- Non-invasive diagnostic
- All included. No proprietary analyser required
- Low operational costs
- Ease of use and interpretation
- Immediate results

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