certest
IMMUNODIAGNOSTIC

Turbilatex®

Calprotectin:
a powerful endogenous biomarker of intestinal inflammation

Inflammatory & Tumor Makers

Calprotectin is a calcium- and zinc-binding protein complex predominantly found in neutrophils and monocytes. When the intestinal mucosa is inflamed, massive neutrophil migration and activation lead to the release of calprotectin into the gut lumen and, consequently, into faeces.

Because calprotectin is resistant to bacterial degradation in stool, it remains stable at room temperature and serves as a robust non-invasive marker of gut inflammation.

Unlike exogenous tracers or invasive procedures, calprotectin is a body-derived molecule whose elevated presence in stool signals neutrophil-mediated gut inflammation. This makes it an efficient tool for monitoring gut health without the invasiveness of endoscopy. It is particularly useful for repeated assessments, monitoring remission/relapse in IBD, and guiding clinical decision-making.

The global incidence of Inflammatory Bowel Disease (IBD) — encompassing Crohn's disease and ulcerative colitis — has been steadily increasing over the past decades, particularly in newly industrialized regions of Asia, South America, and Eastern Europe.

Recent estimates suggest that more than 7 million people worldwide are affected, with annual incidence rates ranging from 6–30 cases per 100,000 inhabitants in Western countries and showing a rapid upward trend in developing nations due to changing lifestyles, diet, and microbiome-related factors.

This growing burden underscores the importance of non-invasive biomarkers such as faecal calprotectin for early diagnosis, disease monitoring, and healthcare cost reduction.

Clinical significance & applications

- Faecal calprotectin (FC) is strongly correlated with endoscopic activity in Inflammatory Bowel Disease (IBD) — both Ulcerative Colitis and Crohn's Disease — and is widely used to differentiate between inflammatory vs. functional gastrointestinal disorders.
- The marker is increasingly being researched beyond gastroenterology – e.g., its levels in faeces or plasma have been studied in renal disease, autoimmune disorders and systemic inflammation.

CAUSE

- Neutrophil migration into gut mucosa & neutrophil activation (release of calprotectin).
- Stable marker in stool (resistant to degradation).
- Functional GI disorder (eg IBS) rather than inflammatory disease.

EFFECT / CLINICAL RELEVANCE

- Elevated faecal calprotectin (active intestinal inflammation (eg IBD).
- Non-invasive monitoring of disease activity and treatment response.
- Normal or low calprotectin (may avoid invasive diagnostics).

Your Laboratory Solutions for Calprotectin

Turbidimetric Calprotectin Assay
(Latex-enhanced Immunoturbidimetry)

An immunoturbidimetric (or latex-enhanced) assay for calprotectin, suitable for open-channel chemistry analysers:

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

Calprotectin Turbilatex Combo is a non-invasive immunological assay which quantifies the calprotectin present in human faeces. This simple test is able to provide quick, reliable information about the condition of the patient's inflammatory process.

Product specifications

Sensitivity (%)	94 (1)
Specificity (%)	> 99 (1)
Cut-off value (in dilution)	500 ng/mL
Cut-off value (in faeces)	50 µg/g
Main interferences	None

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

(1) *Results obtained against a similar reference product in the market*

References	Description
TL-022CP100ED	**Calprotectin Turbilatex Combo** (kit 100 det.)
TL-022CP200ED	**Calprotectin Turbilatex Combo** (kit 200 det.)
TL-022CP400ED	**Calprotectin Turbilatex Combo** (kit 400 det.)
TL-022CP800ED	**Calprotectin Turbilatex Combo** (kit 800 det.)
MST-0019U	**Universal Turbilatex** Sample Collection Vial.

"Quantification of faecal calprotectin is one of the most widely used parameters in the analysis of inflammatory processes which affect the distal gastrointestinal tract.

Non invasive diagnostic

All included. No additional equipment needed

Low operational costs

Ease of use and interpretation

Immediate results

Certest Biotec, S.L.
Pol. Industrial Río Gállego II · Calle J, N°1
50840, San Mateo de Gállego, Zaragoza (Spain)

Tel. (+34) 976 520 354
sales@certest.es
www.certest.es

Turbilatex/Calprotectin-0326EN