

Calprest[®]Turbo

The fastest and easiest test
for quantitative detection
of calprotectin in stool.



**Turbidimetric test
for clinical chemistry
analyzers.**



10' Analysis



High
Throughput



20-6000
mg/kg
High range

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WHAT IS CALPROTECTIN?

Calprotectin is a protein present into the neutrophils and can be found in stool with elevated concentrations in case of Inflammatory Bowel Disease (IBD), namely Crohn's Disease, Ulcerative Colitis and Intermediate Colitis. Calprotectin is stable in stool samples for several days at room temperature and much longer periods at -20°C. The faecal concentration of calprotectin correlates with the histologic and endoscopic patterns of the intestinal inflammation in IBD patients.

THE IMPORTANCE OF DETECTING CALPROTECTIN

Only a small proportion of patients with intestinal disorders referring to the gastroenterology clinic have an organic disease. The majority of population referring to a gastroenterologist (35-50%) is affected by a functional disease called Irritable Bowel Syndrome (IBS), which is probably the most common cause of intestinal disorders.

Therefore it is necessary to differentiate those patients with functional disease (IBS) that do not need invasive researches, from those who are suffering from organic diseases and in particular from Inflammatory Chronic Intestinal Diseases.

Calprest® Turbo is a non-invasive screening test that reliably detects the presence of an inflammatory status in the intestinal mucosa and can be used in the following conditions:

- Differential diagnosis (IBD/IBS)
- Control of the correct course of IBD and monitoring of the therapeutic strategy
- Prediction of clinical relapses

Calprest® Turbo: THE TEST

Calprest® Turbo is the new approach Eurospital offers to detect calprotectin in stool samples in an easy and very fast way. It allows a high throughput of analyzed samples minimizing the errors thanks to the random access the instrumentation offers. The concentration curve can be saved through time thus saving precious reagents that can be used mainly for patients analysis.

The need for a faster and easier test for calprotectin detection comes from the increasing awareness about the benefits this testing brings to patients and the related cost savings for the health systems by both reducing the number of unnecessary endoscopies and, on the other hand, a better patient's management.

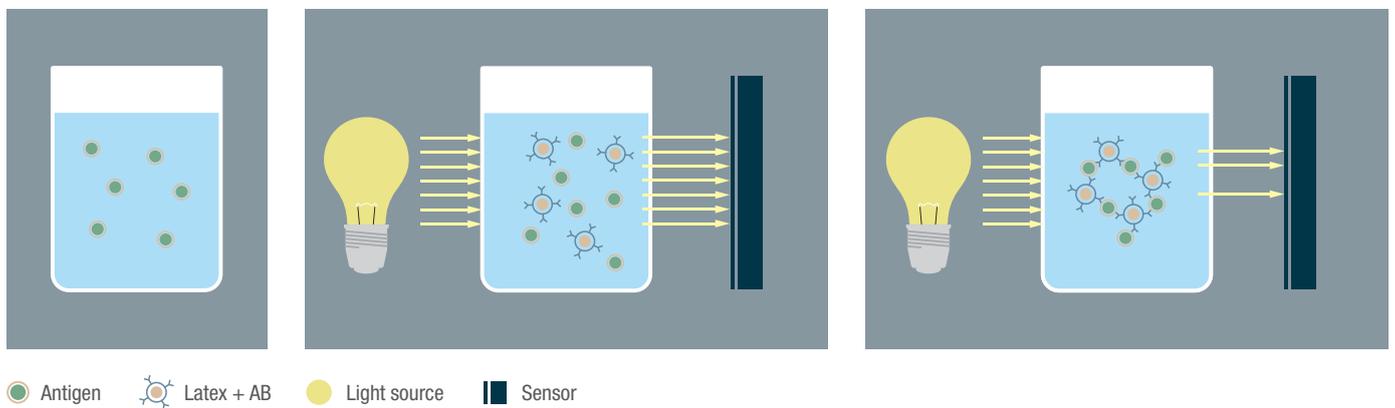
TECHNICAL FEATURES

Calprest® Turbo is a turbidimetric assay. It is based on the agglutination reaction between latex particles coated with antibody and the relative antigen in the added solution. The higher the presence of the antigen, the higher the resulting agglutination state, which results in a more turbid solution.

The instruments will read the amount of light passed through the solution at two different times:

- At the beginning of the reaction (T0)
- After the incubation (T1)

The difference in terms of transmitted light through the solution at the two different times indicates the turbidity of the solution, resulting in the antigen concentration when referred to a concentration curve.



FEATURES	INTERPRETATION
Calibrators Range	0-1500 µg/g
Measurement Range	20-6000 µg/g (with dil. 1:4)
On Board Stability	Up to expiry date at 2-8°C
Time to Results	5-10'
Nr of Calibrators	6
Calibrators Type	Recombinant calprotectin

Calprest® Turbo RELIABILITY

The performance of **Calprest® Turbo** was compared to **Calprest® NG**. Samples from patients with very different calprotectin levels were analyzed with the two different tests and then compared. The comparison showed a very good correlation and an overlapping performance.

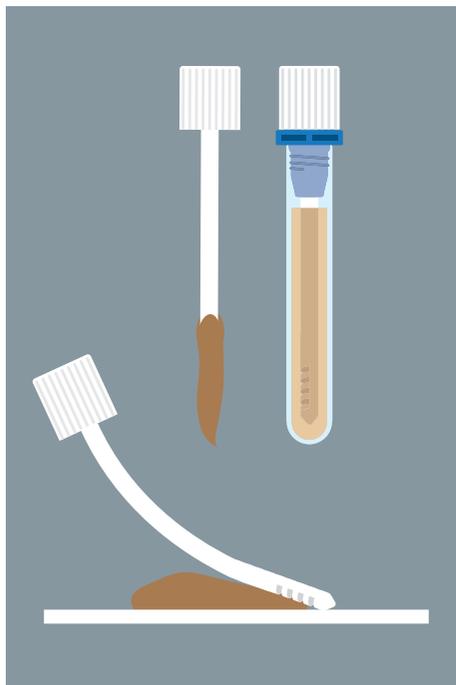
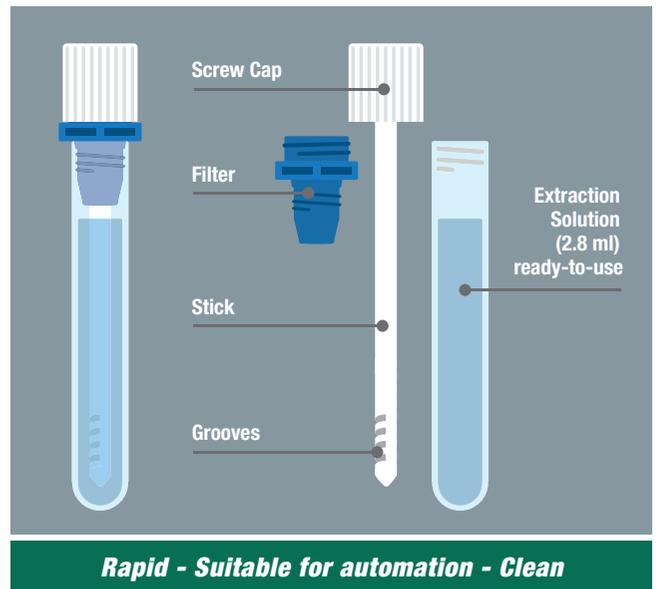
Sensibility	94%	Specificity	> 99%
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CALPROTECTIN CONCENTRATION	INTERPRETATION
< 50 mg/kg	Negative
50 - 120 mg/kg	Borderline: the patient should be retested within a short period of time
>120 mg/kg	Positive

COLLECTION AND EXTRACTION OF SAMPLE

To optimize the use of **Calprest® Turbo** during stool collection and extraction, Eurospital provides with **EasyCal Turbo**, a standardized and CE marked device for stool sample collection/extraction, that significantly reduces the pre-analytical phase, thus allowing the operator to have ready to use extracts that do not require any further processing or transferring to a different tube.

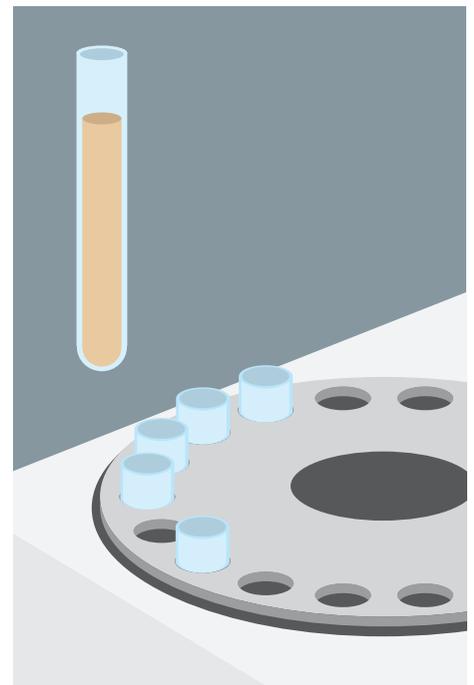
EasyCal Turbo is a ready-to-use device (see picture) which consists in a test tube containing the extraction solution and a shaped dipstick with a specific amount of grooves for stool sample collection. It is easy-to-use: dip the dipstick into the stool sample and then reintroduce it into the device in order to start the extraction. The filter will get rid of the sample excess allowing a very precise and reproducible sample collection. The device with the extract can be then directly loaded into the analytical instrument or stored for later processing.



Dip the shaped stick in the stool sample, and repeatedly rotate it until all grooves are filled with faecal material. Fully insert the stick into the device and screw it by rotating clockwise. The blue separator will retain the stool excess. The extraction process starts immediately.



Vortex each device for at least 60 seconds in order to properly homogenate the content.



Remove the cap and the blue separator by rotating them clockwise. The sample is ready to be used immediately, by placing the device directly into the sample rack, or stored at -20°C for a later use.

TIPS AND PRECAUTIONS FOR A BETTER USE OF *Calprest® Turbo*

Calprest® Turbo shows high sensitivity and high negative predictive value.

Elevated values of calprotectin measured with *Calprest® Turbo*, excluding serious infectious diseases, are a possible indication of Inflammatory Bowel Disease (IBD). Conversely, a negative test result suggests an almost certain exclusion of Inflammatory Bowel Disease.

In patients with infectious diseases or upper respiratory tract disorders, *Calprest® Turbo* may be positive due to swallowing of mucus and consequent presence of activated neutrophils in the stool: in this case the patient should repeat the test when the infection is over.

IBD patients undergoing specific anti-inflammatory therapy, may show decreased levels of calprotectin due to anti inflammatory drugs driven reduction in the activation of granulocytes and, therefore, *Calprest® Turbo* could be negative.

Calprest® Turbo is highly indicated for disease monitoring and patient's follow-up.

IBD patients in clinical remission, but tested positive with *Calprest® Turbo*, may experience relapses within 6 months.

Calprest® Turbo CONFIGURATION

• *Calprest® Turbo* - 200 tests - code 9300



• *EasyCal Turbo* Device to collect stool - 100 pc - code 9302





Literature available on:
www.calprotectintest.com

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Eurospital SpA

Via Flavia 122, 34147 Trieste, Italy

Phone +39 040 8997.1 - Fax +39 040 280944

www.eurospital.com - info@eurospital.it