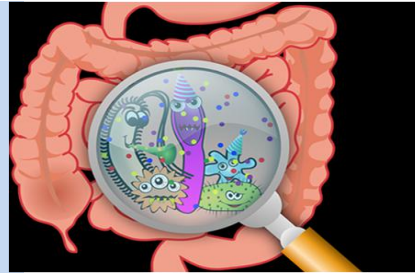


## Calprotectin detection kit (colloidal gold method)

simple, convenient and accurate for quantitative analysis



Inflammatory bowel disease (IBD) includes Crohn (CD) and ulcerative colitis (UC). IBD is a chronic disease that can lead to lower digestive tract or the entire gastrointestinal tract. It often causes symptoms such as abdominal pain, diarrhea, fever, and weight loss. Calprotectin is considered to be a reliable indicator of inflammation, which can clearly distinguish between organic diseases such as inflammatory bowel disease and functional diseases, e.g., irritable bowel syndrome (IBS).

This kit is suitable for in vitro quantitative or semi-quantitative detection of calprotectin in fecal extracts.



**钙卫蛋白检测试剂盒 (胶体金法)**  
CALPROTECTIN (Colloidal Gold)

本试剂盒适用于体外定量或半定量检测粪便提取物中的钙卫蛋白含量。  
规格：20人份/盒  
样本类型：粪便

湖南贝析尔生物技术有限公司

- ✘ Non-invasiveness
- ✘ Stability
- ✘ Relative intestinal specificity

Hunan Beirsw Biotechnology Co., Ltd.

Production address: No.169, Huizhi Middle Road, Changsha High-tech Development Zone  
Tel: 0731-88305496 / 13875932681  
Web site: www.beirsw.com

Production license No.: Hunan Food and Drug Supervision equipment production license No. 20190018

# 1. What is calprotectin?

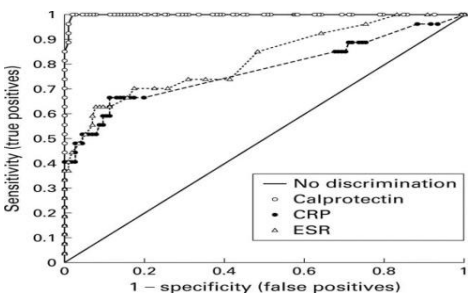
Calprotectin has a molecular mass of 36.5kDa, which mainly exists in neutrophils, but also monocytes, macrophages, and squamous epithelial cells, etc. It can be detected in serum, body fluids or feces. Calprotectin was first proposed by Fagerhol in 1980. It is a calcium- and zinc-binding protein of the S-100 protein family and is found in the cytosol of human neutrophils and macrophages. Calprotectin accounts for 60% of the total protein content in neutrophils cytoplasm, reflecting the migration of neutrophils to the intestinal cavity, so it can be used as a sensitive marker of intestinal inflammation. It can be detected and quantified in feces, serum, urine, and cerebrospinal fluid.

# 2. Clinical application of calprotectin

inflammatory bowel disease (IBD)



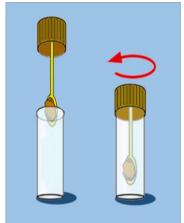
- ✂ Calprotectin is considered to be a reliable indicator of inflammation, which can clearly distinguish between organic diseases such as inflammatory bowel disease and functional diseases, e.g., irritable bowel syndrome.
- ✂ Calprotectin detection can avoid expensive and invasive colonoscopy, reduce imaging examinations, and alleviate intestinal damage and economic burden.
- ✂ Calprotectin is superior to traditional inflammatory markers in the diagnosis and adjuvant treatment of inflammatory bowel disease, and dynamic monitoring of calprotectin can reflect changes in the condition. Calprotectin's advantages of non-invasiveness, stability, and relative intestinal specificity are more beneficial to the management of IBD.



◆ Clinical studies such as Tibble have confirmed that calprotectin can be used as a new diagnostic tool for diarrhea or abdominal discomfort. The sensitivity and specificity in distinguishing Crohn's disease and irritable bowel syndrome is 100% and 97%, respectively, far higher than CRP, ESR and other hematological indicators.

◆ Because the experiment is simple and non-invasive and it can avoid using multiple endoscopes, fecal calprotectin therefore has special significance as a marker of childhood enteritis. Shastri Y et al. Gastroenterology,2006

# 3. Experimental procedure



1. Take out the sampling rod and take multi-site samples on the feces to just fill the slot of the sampling bar.
2. Mix the fecal dilution tube on vortex mixer for at least 1min to be homogenized. Let stand above 2 mins.
3. Take the supernatant from the fecal extract, dilute at 1:10 with saline and mix well, and add to the sample hole.
4. After 5 minutes of reaction, insert the test strip to the measuring instrument and read data.

# 4. Product characteristics

- ✂ Simple to follow and operate, and rapid report results
- ✂ Semi-quantitatively and quantitatively.
- ✂ Accurate and reliable.
- ✂ High sensitivity : the detection limit is 20µg / g.