TECHNICAL BROCHURE

Calprotectin (CPT-01/02B)

Clinical significance

Calprotectin is a neutrophil cytosolic protein with antimicrobial properties, which is present at increased concentration in stool samples during bowel inflammation. The stability of the protein to degradation keeps it stable in faeces for up to 7 days at room temperature, making it an ideal analyte. Calprotectin is released by activation of leukocytes, giving increased levels in plasma, cerebral spinal fluid, synovial fluid, urine or stools as a consequence of disease in the relevant organ(s). Calprotectin inhibits zinc-dependent enzyme systems, as a result kills microbes and induces apoptosis in normal and cancer cells.

Principle of the method

Calprotectin latex turbidimetric assay is based on agglutination reactions. These involve *in vitro* aggregation of microscopic latex particles. This aggregation consists in the specific reaction between antigen and antibodies, antigen contained in the sample and the antibodies anti-antigen coated on polystyrene latex particles**.** The sample is mixed with a suspension containing antibodies against the antigen bound to latex particles. If antigen is present in the sample it will react with the antibodies and form an aggregate. If no antigen is present in the sample the mixture will keep its appearance as a smooth suspension. Such turbidity is measured as an increase in absorbance at the determinate wave and is proportional to the quantity of antigen contained in the sample.

General features

- ✓ Turbilatex reagent
- ✓ Specificity: > 99 %
- ✓ Sensitivity: 94 %
- ✓ No prozone effect up to 8000 µg of hCp/g of stool
- ✓ No cross reactivity

Reference values

Adult	< 50 µg of hCp/g of stool

Commercial info

Reference	CPT-01B / CPT-02B
Package	Liquid-stable reagent

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