

BÜHLMANN fCAL[®] turbo

Immuno turbidimetric fecal CALPROTECTIN Assay

Unique in
Speed
Quality
Flexibility



Fecal Calprotectin result within 10 minutes

- Streamline your workflow
- Integrate fecal samples into routine
- Use random access and save hands-on time
- Measuring Range from 20 to 8000 µg/g

Simplify and improve fecal extraction with CALEX[®] Cap

- Prefilled CALEX[®] extraction device
- High quality for fast and efficient extraction
- Total analysis time (TAT) of 30 minutes
- Compatible for Total Laboratory Automation solutions

Use the established reference

- Proven record in stable standardization
- Established cut-off in IBD diagnosis and monitoring
- Clinically validated in over 100 scientific publications

Fecal Calprotectin result within 10 minutes

BÜHLMANN fCAL® turbo, the turbidimetric immunoassay, is a flexible solution to be applied on most clinical chemistry analyzers.

The technology is a milestone in fecal calprotectin quantification. It allows very rapid and flexible random access use, as well as being the ideal solution for high throughput applications in the routine laboratory. The fCAL turbo reduces the hands-on time dramatically and allows to report calprotectin results from human stool samples within very short time.

Centrifuged fecal extracts derived from the unique BÜHLMANN extraction device CALEX® Cap can be applied directly on your existing analyzer. No special equipment is required. BÜHLMANN continuously works on the list of applications. The analysis itself takes ten minutes and covers a range from 20 to 8000 µg/g. Re-testing of very high concentrated samples might be done automatically.

Available application notes	Siemens	Advia 1650/1800, Advia 2400, Advia XPT, Atellica CH 930
	Roche	Cobas c501/c502, Cobas c701/c702, cobas c111, cobas Pro Module c503*
	Abbott	Architect (c series), Alinity
	Beckman	AU series (AU400/640), AU480, AU680, AU5800, DxC700AU, DxC 600/800
	Mindray	BS-200E, BS-240/ 240 Pro, BS-380, BS-400
	Thermo Fisher	Konelab30i, Indiko/Indiko Plus
	Ortho	Vitros 5600
	The Binding Site	Optilite
	Horiba ABX	Pentra 400
	Biosystems	BA200

*under preparation

PRODUCT DESCRIPTION

Method	Particle-enhanced turbidimetric immunoassay (PETIA)
Sample Type	Fecal extracts
Kit Format	2 reagents (wedge bottles for direct loading on many platforms) Reagents last for ~200 tests (platform dependent)
Sample Preparation	CALEX® Cap extracts can be used directly without additional dilution
Reagent on board	Stable for at least 60 days
Calibration	Stable for up to 60 days
Calibration range	0-2000 µg/g
Measuring range	20-8000 µg/g
Sample volume	~10 µL centrifuged fecal Extract (1:500)
Time to result	~10 min CALEX® Extraction ~20 min

Fecal extracts on Clin Chem Platforms

Centrifuged extracts are free from undigested diet fibers. The bacterial load is reduced by ~95% and results in a comparable level as known from routine urine samples from UTI patients.

Carry-over effects in the high through-put analyzers is minimal and has been determined as <0.5%. Serum contaminations can be excluded.

Turbidimetric reagents are free of critical compounds. Interactions to other assays are highly unlikely and have not been observed.

Simplify and improve fecal extraction with CALEX® Cap

The CALEX® Cap is a unique device for the fast and efficient quantitative extraction of calprotectin in stool specimen.

The prefilled tubes are ready to use. Three simple steps are required for extraction:

STEP 1: Dip the dosing tip into the fecal sample and fill the grooves completely with the matrix material.

STEP 2: Place the pin back into the tube, close tightly and extract by soaking and vortexing.

STEP 3: Centrifuge the extract within the CALEX® tube for 10 min.

The resulting extract (1:500) is ready to use in the turbidimetric assay. The CALEX® extraction is highly correlating to the manual weighting method.

Use the established reference

The BÜHLMANN fCAL® turbo standardization is based on the well established BÜHLMANN fCAL® ELISA, which is implemented globally in laboratories as gold standard calprotectin assay.

Trust in proven stable standardization

BÜHLMANN has given the prove to keep a constant and stable standardization of calprotectin. Our long experience with the complex protein and our large network in science and clinics guarantee a continuous quality of the assay.

Established cut-off for diagnosis and monitoring

Based on clinical experience over 10 years, BÜHLMANN established the use of a grey zone in the differentiation between IBD and IBS as well as in IBD patient monitoring. Recent US validation studies allowed summarizing and sharpening those levels.

Application of a cut-off **80 µg/g** reveals a higher specificity with only a slight reduction in specificity and therefore facilitates the diagnosis of IBD with a major improvement of cost effectiveness. To keep the indecisive grey zone region as small as possible a cut-off **160 µg/g** shows an ideal trade-off for a combination of specificity and better sensitivity for the studied patient cohort.

Clinically proven in more than 100 publications

Please, refer to our homepage or ask for the updated literature list.



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BÜHLMANN fCAL® turbo Ordering Codes:

Kit	KK-CAL	
Reagent Kit (~200 tests)	B-KCAL-RSET	R1 35 ml, R2 7 ml
Calibrator Kit	B-KCAL-CASET	6 levels, 1 ml each; Ready to use
Control Kit	B-KCAL-CONSET	3 x 2 levels, 1 ml each; Ready to use

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