

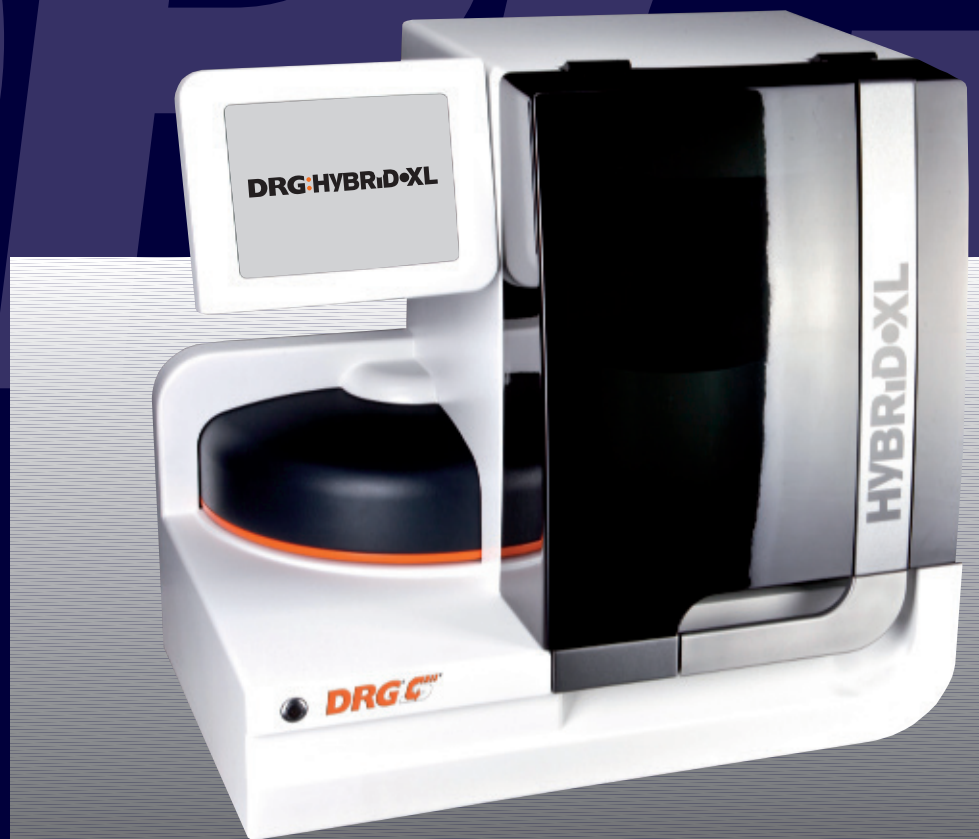
Fully Automated

Calprotectin

DRG:HYBRiD•XL®

**Automated Random
Access Analyzer for
Immunoassays and
Clinical Chemistry**

*Vollautomatischer
Random Access
Analyzer für
Immunoassays und
Klinische Chemie*



DRG

DRG:HYBRID•XL[®]

Calprotectin

NEW

Fully automated on our **DRG:HYBRID•XL[®]**, a Random Access Analyzer for Immunoassay and Clinical Chemistry

For easy, clean and fast handling of stool samples

Ordering Information

Calprotectin **HYE-5767** **40 tests**
Fecal Extraction System (FES) **HYI-586I** 100 tubes

Assay Characteristics

- Assay Principle: Sandwich ELISA
- Sample Volume: 4µl (+ 60µL dead volume)
- Dynamic Range: 8.14 - 1.500 µg/g
- Total Assay Time: 1 hour (30/30 min)

Benefits

- Short assay time
- Broad measuring range
- High sensitivity
- Completely automated
- Clinical significance of results highly comparable with market leaders
- Easy, fast and clean fecal sample (preparation without manual dilution or centrifugation)
- Two controls included
- Two re-calibrators included
- Random access

Sensitivity/Reference Range

- **Sensitivity**
Limit of Blank: 2.86 µg/g
Limit of Detection: 8.14 µg/g
Limit of Quantification: 17.22 µg/g

- **Reference Range**

Negative	< 50 µg/g
Grey Zone	50 - 200 µg/g
Positive	> 200 µg/g

What is Calprotectin?

Calprotectin is a calcium and zinc binding protein of 36 KDa molecular weight. Its concentration in stool is much higher compared to plasma levels.

Fecal calprotectin is clearly increased in Inflammatory Bowel Disease (IBD), a group of inflammatory conditions, represented i.e. by Crohn's disease (CD) and Ulcerative Colitis (UC) and is useful for differential diagnosis of functional organic diseases like irritable bowel syndrome (IBS).

Clinical Utility

- IBD differentiation from IBS (avoid unnecessary colonoscopy)
- Monitoring of mucosal healing in IBD patients
- Prediction of relapse (clinical remission)

Method Comparison

Comparison to Bühlmann: ROC Analysis

Clinical significance	DRG:HYBRID•XL	Bühlmann
Cut-off (µg/g)	187	189
Sensitivity (%)	85.7	86.5
Specificity (%)	81.6	84.2

Comparison to DRG ELISA (cat # EIA-5415)

A comparison of **DRG:HYBRID•XL** Calprotectin Test HYE-5767 (y) and DRG Calprotectin (MRP 8/14) Stool (1h) ELISA, EIA-5415 (x) using clinical samples gave the following correlation:

$$n = 80$$
$$r = 0.912$$
$$y = 1.1033 x + 18.923$$

Innovation

DRG proudly presents state of the art design and functionality with the **DRG:HYBRID•XL**.

This innovative and unique technology allows the simultaneous measurement of immunoassay and clinical chemistry parameters including turbidimetric tests.

The **DRG:HYBRID•XL** analyzer was designed to offer high quality results at low sample throughput for dedicated parameters efficiently and cost effectively.

In addition the **DRG:HYBRID•XL** offers key functionality:

- Ready to use reagents in cartridges with 12-months stability (after production)
- **Liquid Level Detection**
- 40 test cartridge positions with random access function
- Up to 40 samples per run
- Standard sample tubes (13-16 mm) or dedicated **DRG Sample Tube** (8 mm)
- Automated pipetting of samples
- Automated pre-dilution of samples
- Automated dilution of samples (1:10 - 1:1000)
- STAT function
- Connection to LIS/HOST

Efficiency

DRG:HYBRID•XL is designed as a benchtop unit with a small footprint. This allows the processing of samples in multiple environments, automatically and efficiently.

The analyzer is incredibly quiet and is designed to be very user-, and service-friendly. Requiring only a few consumables that can be changed quickly along with a short start-up time allow a quick turnaround between runs.

The analyzer will display immediate determinations as soon as the sample has been processed (typically first results in 10 minutes for clinical chemistry and 60 minutes for immunoassay).

Sample Handling

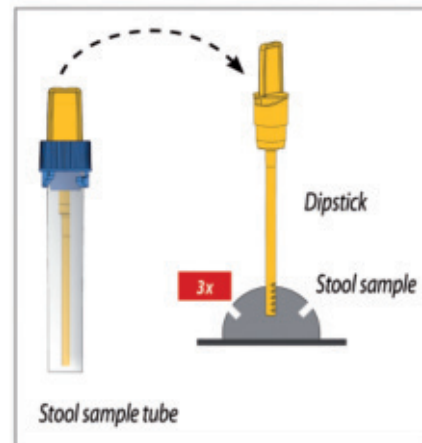
Dedicated DRG Fecal Extraction System (FES)

Device for straight forward and fast extraction of stool samples. DRG catalog number is HYI-586 I. One box contains 100 tubes (ready to use).

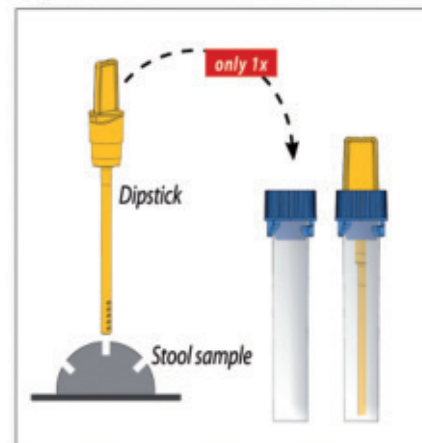
The **DRG Fecal Extraction System (FES)** greatly simplifies the laborious procedure for stool preparation and is adapted to use on the **DRG:HYBRID•XL**.

No additional manual dilution or pipetting steps are required. The stool sample tube can be put on the analyzer and the sample will be processed automatically.

Steps 1-2



Steps 3-4



DRG:HYBRID•XL®

Fully automated Random Access Analyzer
for Immunoassays and **Clinical Chemistry**

Vollautomatischer Random Access Analyzer
für Immunoassays und **Klinische Chemie**

Assay menu / Test Menu

Fertility / Fertilität:

LH
FSH
Prolactin
Beta-hCG
Progesterone
Estradiol
Testosterone
DHEA-S
DHEA
Free Testosterone
17-OH Progesterone
Androstenedione
Estrone*
SHBG*
DHT*

Tumormarker / Tumormarker:

TM-CA 72-4
Beta-hCG
AFP
PSA*
Free PSA*
TM-CYFRA 21-1*
TM-CA 125*
TM-CA 15-3*
TM-CA 19-9*
CEA*
TPS*
NSE*
Chromogranin*

Thyroid Function / Schilddrüse:

TSH anti TG*
free T 3 T 3
free T 4 T 4
TPO*
TSH Receptor*

Prenatal Supervision / Pränatal Diagnostik:

AFP
Free Estriol
Beta-hCG
PAPP-A
Free b-HCG
HPL
PLGF

Diabetes / Diabetes:

Insulin
HbA1c
C-Peptide*
Proinsulin*
Anti-GAD*
IAA*
ICA*
Glucose*
Microalbumin*
and others

Bone Metabolism / Knochenstoffwechsel:

25-OH Vitamin D
PTH*
Osteocalcin*
Calcitonin*
Magnesium*
Calcium*
and others*

Iron Metabolism / Eisenstoffwechsel:

Hepcidin 25 (bioactive)
EPO*
IL-6*
Ferritin*
Sol. Transferrin Rec.*
Iron*
and others

Hypertension / Bluthochdruck:

Renin (active)
Aldosterone
Angiotensin*

Cardiac Marker / Kardiale Marker:

HS-CRP
D-dimer
Troponin*
Myoglobin*
CK-MB*
HDL/LDL*
and others

Nephrology / Nephrologie:

Cortisol
DHEA-S
Hepcidin 25 (bioactive)

Cystatin C

ACTH*
Creatinin*
BUN/Urea*
GFR*
and others

Saliva /

Speichel-Diagnostik

Cortisol SLV*
DHEA SLV*
Estradiol SLV*
Testosterone SLV*
Progesterone SLV*
17-OH Progesterone SLV*
Free Estrone SLV*

Infectious Diseases / Infektions-Serologie:

CMV IgG/IgM
Rubella IgG/IgM
Toxo IgG/IgM
HSV 1/2 IgG/IgM
Calprotectin
Chlamydia IgG/IgM
HCV
Fasciola IgG
Treponema Screen

TDM / TDM:

Phenobarbital*
Phenoxetin*
Digitoxin*
Valproic Acid*
Carbamazepine*
Gentamicin*
Theophylline*

Others / Andere:

Uric Acid*
ASAT (GOT)*
ALAT (GPT)*
Alpha Amylase*
Gamma-GT*
Lactate*
Phospholipids*
Sodium*
Potassium*
Phosphorus* and others

Inflammation / Entzündung:

Calprotectin
CRP
IL-6*
ASL-O*
Antitrypsin*
RF*
C3/C4* and others

Autoimmune Diseases / Autoimmunerkrankungen:

Anti CCP
Anti-DGP (Gliadin) IgA
Anti-DGP (Gliadin) IgG
Transglutaminase IgG*
Transglutaminase IgA*
ANA-8 screen*
TPO*
and others

Allergy / Allergie:

IgE*
Allergen Panels
Food Allergens*
Inhalation Allergens*
Child Panel*
In-door Allergens*

White/Weiss = Immunoassays
Red/Rot = Clinical Chemistry

*= coming soon/projected
*= in Kürze verfügbar/in Planung



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