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MONOTEST STOOL ANALYZER

INTEGRATED DIAGNOSTIC INTELLIGENCE PLATFORM FOR STOOL TESTING

"Beyond Calprotectin - The 5 Layers of Gut Intelligence."







NeoMedica
bioscience technology

Coppross FULLY AUTOMATED MONOTEST STOOL ANALYZER



GUT FEELING — Where Insight Begins

Integrated Diagnostic Intelligence Platform for stool testing.

The **NeoMedica Coppross platform** is a fully automated **Monotest Immuno-Analyzer** specialized for stool sample analysis using photometric detection.
It employs a unique **monotest reagent cartridge**, delivering state-of-the-art technology and exceptional flexibility.
The platform is designed to ensure safe, clean sample handling while providing **fast, reliable, and reproducible results** for routine laboratory diagnostics.

"Every gut tells a story — Coppross decodes it."

The GI Orientation Profile Concept

The GI Orientation Profile: Unlocking the Gut's Multi-Layered Story

The Diagnostic Challenge: Overlapping symptoms for IBD, IBS, Enteritis, Diverticulitis

The Solution

The **GI Orientation Profile** combines a group of key stool biomarkers that also serve as a *smart pre-endoscopic filter, and orient the diagnosis.*

Diagnostic Layer	Core Biomarkers	Clinical Insight
Cellular Alarm	Calprotectin & Lysozyme	The "fire signal" — measures intensity and presence of inflammation.
Epithelial Defense	β-Defensin & Lysozyme	The "defense report" — evaluates the strength of the local immune barrier.
Integrity Check	Zonulin & Albumin	The "damage and permeability" layer — assesses barrier function and tissue injury.

Key Clinical Applications

- *Cellular Alarm* **(Calprotectin & Lysozyme)**: These markers signal the overall intensity of inflammation and the recruitment of the "mobile immune system" (neutrophils and macrophages).
- *Epithelial Defense* **(Beta-defensin)**: This marker signals the strength of the local defense system (epithelial cells) and the body's direct fight against microbes.
- *Integrity Check* **(Zonulin & Albumin)**: These markers assess functional integrity (Zonulin, functional dysfunction, epithelial stress, permeability) and structural damage (Albumin).

Expanded Profile: Inflammation & Protein Loss

Markers of Mucosal Immunity, and Gut Structural Situation

MARKER	CORE INSIGHT / CLINICAL RELEVANCE
Fecal α1-Antitrypsin (α1AT)	Marker of protein-losing enteropathy; highly stable indicator of plasma protein leakage.
Fecal Secretory IgA (sIgA)	Represents mucosal immune integrity; low values indicate compromised barrier immunity and susceptibility to infection.

Targeted Diagnostics: Celiac, Allergy & Critical Conditions

Celiac Disease (Local Immune Response)

- **Anti-Transglutaminase Ab (tTG):** Highly specific autoimmune marker.
- **Anti-Gliadin Ab (DGP):** Broader and more sensitive; detects seronegative celiac disease and aids post-treatment follow-up.

Non-IgE Food Allergy

- **EDN (Eosinophil-Derived Neurotoxin):** Specific marker of eosinophilic inflammation. Combination of ↑ Zonulin + ↑ EDN strongly suggests non-IgE–mediated food allergy.

Critical Diagnostic Indicators

- **Hemoglobin/Haptoglobin Complex (Hb/Hp):** Marker of occult GI bleeding; stable throughout the intestinal tract.

- **Pancreatic Elastase-1 (E1):** Marker of exocrine pancreatic insufficiency; low levels may indicate chronic pancreatitis or pancreatic cancer.



Pathogens: Deciphering the Enteritis Code

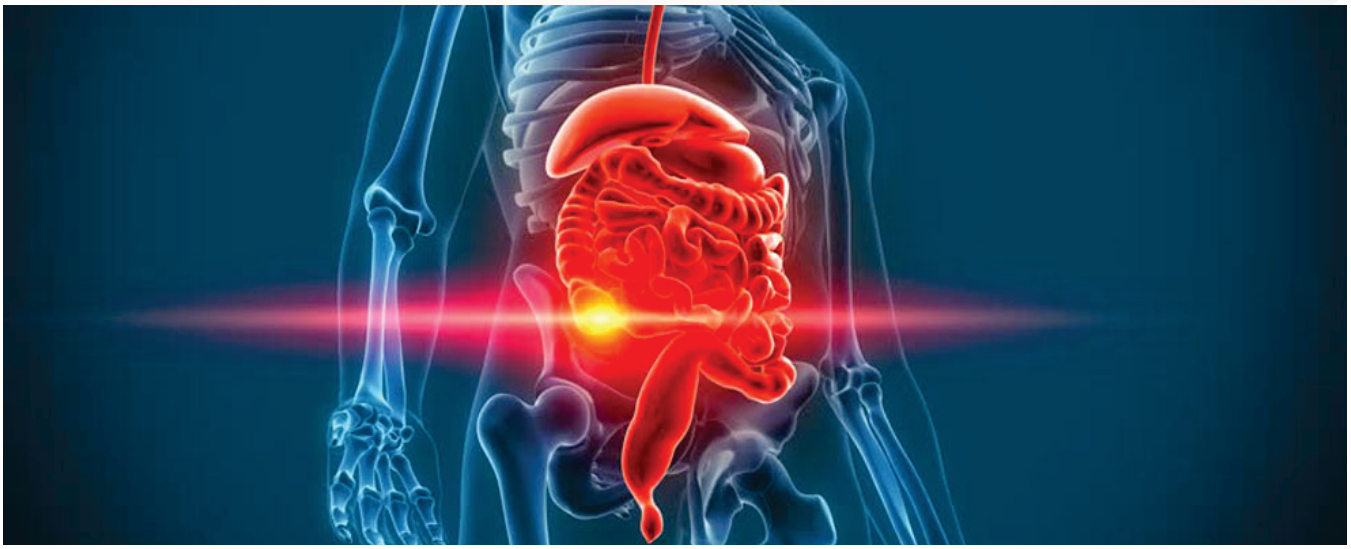
Viral Pathogens: The Non-Inflammatory Attack

Viral gastroenteritis usually presents with low inflammatory markers (Calprotectin/ Lysozyme).

VIRUS	CLINICAL SIGNIFICANCE
Rotavirus	Severe pediatric diarrhea; key pediatric screening test.
Adenovirus	Longer infection course; valuable in differential diagnosis of persistent diarrhea.

Bacterial & Parasitic Pathogens

PATHOGEN	DIAGNOSTIC VALUE
Campylobacter jejuni	Leading bacterial cause of gastroenteritis.
Clostridium difficile GDH	Screening marker for all C. difficile strains.
Clostridium difficile Toxin A+B	Confirms active toxin-producing infection.
Helicobacter pylori Antigen	Reliable post-treatment confirmation test.
Cryptosporidium / Giardia / Entamoeba	Key protozoal causes of parasitic enteritis.





STOOL EXTRACTION SYSTEM

The **Stool extraction system** is a universal stool extraction tool that can be used with NeoMedica stool-basedtests. It is a specially designed tube containing an extraction buffer for sample extraction. One single extraction can be used to determine the levels of biomarkers and pathogens in multiple gastroenterology areas.
Stool extraction systems are prefilled with **2.5 ml** of sample extraction buffer.

PREPARATION FOR TESTING

- You should unscrew the blue dipstick end of the tube and insert the dipstick into the sample.
- Pick up the appropriate amount of sample and place the dipstick back into the tube.
- Homogenize the mixture of sample and extraction buffer by vortexing and allow the sediment to settle.
- Carefully unscrew the white cap of the tube and break the tip by bending it back and forth.
- Dispense the amount of extracted sample, designated in the corresponding paragraph of each test, in well on Position 1 of each cartridge.

10 TESTS CAN BE DONE FROM EACH EXTRACTION TUBE.

EXTRACTION TUBE CODE		TESTS THAT COULD BE DONE
NU1800S	C1811CALP	Calprotectin
	C1801V24CAM	Campylobacter
	C1802V24CDGD	Clostridium difficile GDH
	C1803V24CDT	Clostridium difficile Toxin A+B
	C1804V24CP	Cryptosporidium parvum
	C1805V24EH	Entamoeba histolytica
	C1806V24GIA	Giardia
	C1807V24GHP2	H. pylori 2nd Gen.
	C1809V24ROTV	Rotavirus
	C1810V24VERT	Verotoxin 1+2
	C1812HBHP	Hemoglobin/Haptoglobin Complex
	C1813ADN	Adenovirus
	C1814AST	Astrovirus
	C1826ZON	Zonulin
	C1820ALB	Albumin
NU1801S	C1818DEF	β-Defensin
	C1819EDN	EDN
	C1821ATR	α1-Antitrypsin
	C1822SIGA	sIgA
	C1825PELA	Pancreatic elastase
NU1802S	C1823GL	Anti gliadin Ab
	C1824ATTG	Anti transglutaminase Ab
NU1803S	C1815LYS	Lysozyme



TEST MENU

CODE	DESCRIPTION	Pathogen / Clinical Relevance	EXTRACTION TUBE	STATUS
C1811CALP	**Calprotectin**	Marker of intestinal inflammation – differentiates IBD from IBS	NU1800S	CE
C1801V24CAM	**Campylobacter**	Leading cause of bacterial enteritis and foodborne diarrhea	NU1800S	CE
C1802V24CDGD	**Clostridium difficile GDH**	Screening marker for C. difficile colonization	NU1800S	CE
C1803V24CDT	**Clostridium difficile Toxin A+B**	Confirms active C. difficile infection (toxin-producing strains)	NU1800S	CE
C1804V24CP	**Cryptosporidium parvum**	Parasitic infection causing watery diarrhea, especially in immunocompromised patients	NU1800S	CE
C1805V24EH	**Entamoeba histolytica**	Amoebic dysentery; invasive protozoal infection with mucosal ulceration	NU1800S	CE
C1806V24GIA	**Giardia lamblia**	Chronic parasitic infection mimicking IBS or malabsorption	NU1800S	CE
C1807V24GHP2	**Helicobacter pylori (2nd Gen.)**	Active gastric infection detection; useful for post-treatment follow-up	NU1800S	CE
C1809V24ROTV	**Rotavirus**	Severe viral gastroenteritis in infants and children	NU1800S	CE
C1810V24VERT	**Verotoxin 1+2**	E. coli (STEC) detection; risk of hemolytic uremic syndrome (HUS)	NU1800S	CE
C1812HBHP	**Hemoglobin/ Haptoglobin Complex**	Marker of occult gastrointestinal bleeding	NU1800S	CE
C1813ADN	**Adenovirus**	Viral gastroenteritis with prolonged course; affects children and adults	NU1800S	CE
C1814AST	**Astrovirus**	Mild viral gastroenteritis, often self-limiting	NU1800S	CE
C1826ZON	**Zonulin**	Marker of intestinal barrier integrity; elevated in “leaky gut” and celiac disease	NU1800S	R&D
C1820ALB	**Albumin**	Indicates structural damage and protein loss through intestinal mucosa	NU1800S	R&D
C1818DEF	**β-Defensin**	Antimicrobial peptide reflecting epithelial immune defense strength	NU1801S	CE
C1819EDN	**EDN**	Eosinophilic inflammation marker – non-IgE food allergy and GI hypersensitivity	NU1801S	CE
C1821ATR	**α1-Antitrypsin**	Protein-losing enteropathy marker – quantifies gut permeability to plasma proteins	NU1801S	CE
C1822SIGA	**sIgA**	Secretory immunoglobulin A – evaluates mucosal immunity and gut barrier protection	NU1801S	CE
C1825PELA	**Pancreatic Elastase**	Marker of exocrine pancreatic insufficiency; low levels indicate EPI	NU1801S	CE
C1823GLIA	**Anti-Gliadin Ab**	Gluten sensitivity and celiac disease screening (local immune response)	NU1802S	CE
C1824ATTG	**Anti-Transglutaminase Ab**	Autoimmune marker for celiac disease; confirms gluten-triggered damage	NU1802S	CE
C1815LYS	**Lysozyme**	Reinforcing enzyme of innate defense; defines location and strength of inflammation	NU1803S	CE

CONTROLS / SYSTEM REAGENTS

CODE	ITEM	DESCRIPTION	STATUS
C2035	**Hemoglobin/ Haptoglobin Complex CONTROL MATERIAL**	Control material	CE
C1801V24CAM	**Anti-H. Pylori CONTROL**	Control material	CE
NU1800S, NU1801S NU1802S, NU1803S	**Stool extraction system**	Preanalytic device	CE
C1901CA	**WASH A**	System reagent	CE
C1902CB	**WASH B**	System reagent	CE
C1904CS	**Sanitizing solution**	System reagent	CE
C1905CL	**System liquid**	System reagent	CE

TECHNICAL CHARACTERISTICS

INDEX	PERFORMANCE
Sample positions	30
Sample volume	Minimum 20μL (check instruction for use of each)
Reaction temperature	25±0.5°C or 37°C±0.5°C
Assay Method	EIA (Enzyme Immunoassay)
Assay Speed	(60~120) min /30tests
Calibration	Calibrator included in all reagent kits
Quality Control	Internal QC material included in all reagent kits
Test Combination	Different tests with the same reaction temperature
Photometer Light Source	LED
Filters	450nm/630nm
OD Resolution	0.001ABS
Range of OD	0.000~3.000ABS
Accuracy of Filters	≤±3nm
Half width of Filters	≤12nm
Linearity of OD	0.000~3.0000A, r≥0.98
Repeatability of OD	CV≤5%
Accuracy & Fluctuation of Temperature	When operating at 25°C, offset ≤±0,5°C, Fluctuation ≤±0.4°C
Carry-over	≤1%
Accuracy and Precision of Priming	Offset ≤±5%, CV≤2%
Noise	<80dB
Dimension / Weight	680mmx600mmx500mm / 48kg

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