



**IVD CAPSULE FERRITIN ON THE ABIOSCOPE®  
THE FIRST POINT-OF-CARE FERRITIN QUANTITATIVE ASSAY**

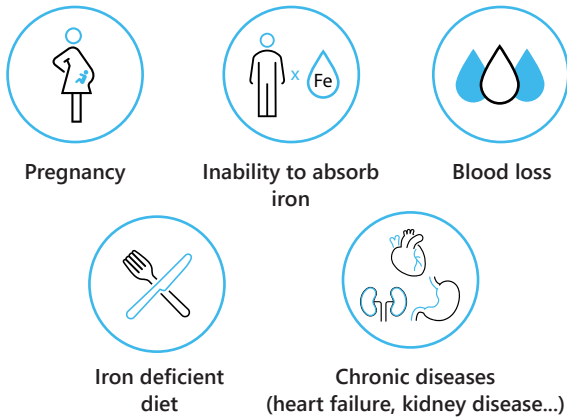
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**FERRITIN QUANTIFICATION IN 5 MINUTES RIGHT AT THE FINGERTIP**

## SCREENING FOR IRON DEFICIENCY BY TESTING FERRITIN BLOOD LEVEL

Iron deficiency is the most frequent nutritional deficiency globally.

5 MOST COMMON IRON DEFICIENCY CAUSES

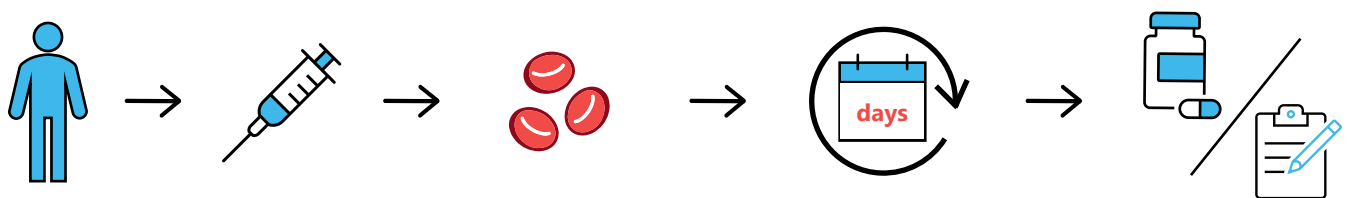


Iron deficiency affects up to one-third of the world's population<sup>1</sup> and is one of the leading risk factors for disability and death worldwide. Yet it is still commonly underdiagnosed and undertreated<sup>2</sup>.

Iron is essential to meet the body's needs and to maintain energy levels and concentration, thus being iron deficient can leave feeling fatigued, unable to concentrate, and cold.

It is therefore essential to assess the body's iron measure reserves. Ferritin has been scientifically and clinically validated for this purpose.

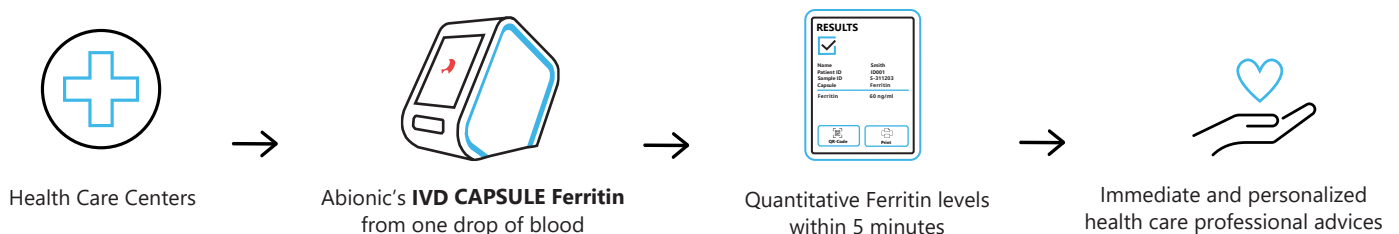
CURRENT PATIENT'S JOURNEY



Abionic has developed the **IVD CAPSULE Ferritin**, a quantitative serological assay at the point-of-care offering health care professionals (HCPs) an ultra rapid solution to accurately identify patients' iron deficiency in 5 minutes from a single drop of blood using the CE marked IVD device, **abioSCOPE**<sup>®3</sup>.

## ABIONIC IS THE FIRST TO BRING QUANTITATIVE FERRITIN TEST AT THE POINT-OF-CARE

The **abioSCOPE**<sup>®</sup> optimises patients' clinical management by enabling HCPs to provide immediate personalized advices on diet and/or treatment.



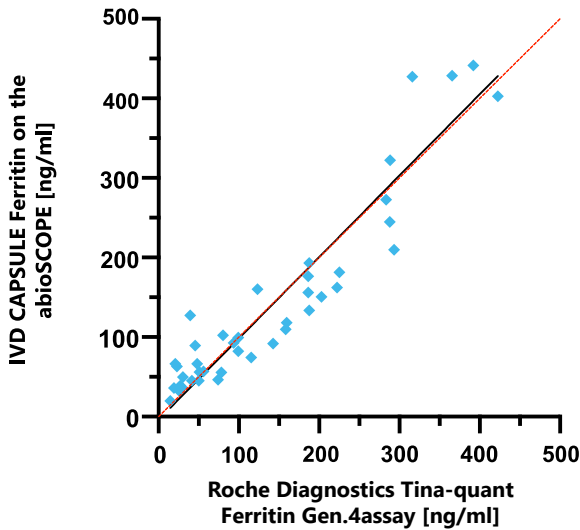
Abionic's **IVD CAPSULE Ferritin** enables HCPs to monitor patient's iron levels right at the point-of-care and in only 5 minutes helping them to decide on the right treatment and/or dietary advices.

**QUANTITATIVE FERRITIN LEVEL IN 5 MINUTES  
RIGHT AT THE FINGERTIP**



## CLINICAL EVIDENCES

Excellent correlation between test results on the abioSCOPE® and a laboratory reference method.



41 whole blood samples were analyzed on the **abioSCOPE®**, and corresponding plasma samples were analyzed in a central laboratory on a laboratory reference method.

Non-Weighted Deming regression statistics demonstrated the excellent linear correlation:  $y = 1.02 [95\% \text{ CI: } 0.86 \text{ to } 1.19]x - 3.76 [-23.72 \text{ to } 16.20]$ .

The correlation (Figure 1) highlights the clinical ability of Abionic's PoC Ferritin solution to revolutionise the diagnostic workup of patients, by providing accurate and quantitative whole blood test results within 5 minutes versus days when relying on standard laboratory tests<sup>3</sup>.

Figure 1. Method comparison Abionic IVD CAPSULE Ferritin assay on the abioSCOPE device versus Roche Diagnostics Tina-quant Ferritin Gen.4 assay. The red dashed line is the identity line and the plain black line the Non-Weighted Deming regression line.

## DISRUPTIVE NANOFUIDIC TECHNOLOGY

Abionic's patented nanofluidic immunoassay revolutionizes point-of-care diagnostic solutions.

Abionic's technology enables quantitative results with the potential to develop up to 14 specific parameters in a single capsule.

Molecules are forced into a nanochannel, limiting the travel distance to a few hundreds of nanometres and reducing incubation time to 2 minutes<sup>4</sup>.

A washing step is not needed as the surface-to-volume ratio is extremely high, and non-specific background is negligible<sup>4</sup>.

Ferritin level can thus be efficiently quantified within an ultra short assay time, with high precision and accuracy on a closed, small, easy-to-operate platform, enabling lab equivalence results at the point of care.

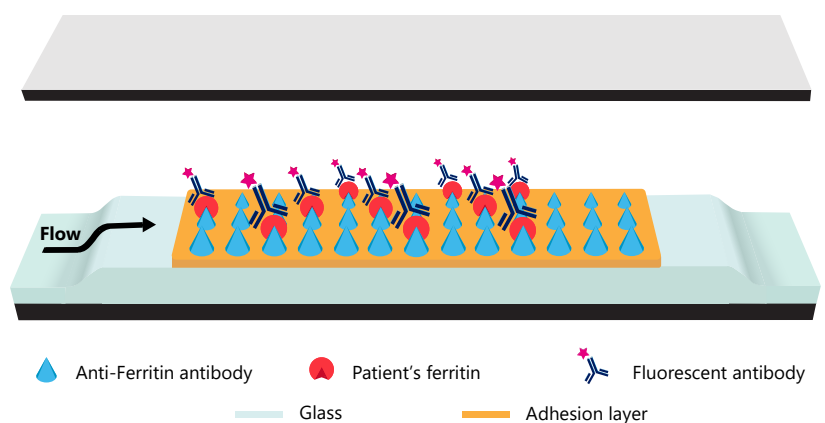


Figure 2. Cross-section through a nanofluidic biosensor

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## UNIQUE NANOFUIDIC IMMUNUASSAY BASED PLATFORM

The abioSCOPE®: True game changer for the future of diagnostics.



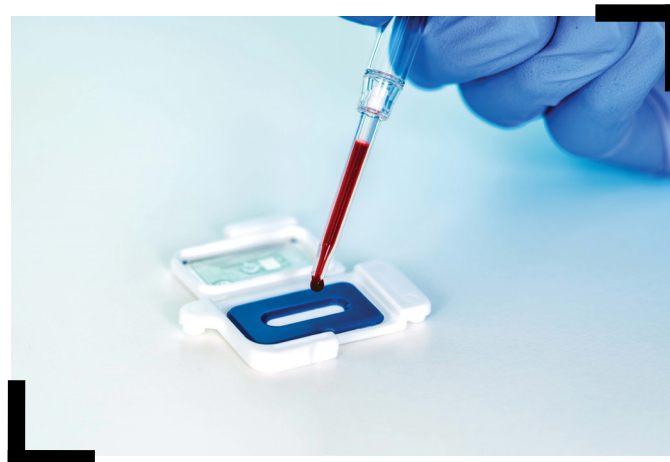
Rapid turnaround time  
5 minutes from blood sampling to actionable results



Easy to use  
4 simple steps with a blood volume of 50 µl from a finger tip



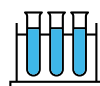
No maintenance  
Contamination-free device, no washing step required



Laboratory quality results  
Performances similar to laboratory ferritin serologic assays



Full connectivity  
HL7 (ethernet), USB connexion, barcode reader compatibility



One platform, many tests  
Available tests: Allergy, Pancreatic Stone Protein (PSP)  
More tests coming soon

### References:

1. Assessing the iron status of populations, including literature reviews: report of a Joint World Health Organization/Centers for Disease Control and Prevention Technical Consultation on the Assessment of Iron Status at the Population Level, Geneva, Switzerland, 6–8 April 2004. – 2nd ed. ISBN 978 92 4 159610 7 (electronic version).
2. GBD 2017 DALYs and HALE Collaborators. "Global, regional, and national disability-adjusted life-years (DALYs) for 359 diseases and injuries and healthy life expectancy (HALE) for 195 countries and territories, 1990-2017: a systematic analysis for the Global Burden of Disease Study 2017". Lancet. 2018 Nov 10.
3. Abionic's internal data available on demand
4. Putallaz L, van den Bogaard P, Laub P, Rebeaud F. "Nanofluidics Drives Point-of-care Technology for on the Spot Protein Marker Analysis with Rapid Actionable Results" Nanomed Nanotechnol. 2019, Vol. 10 Iss. 5 No: 536

