# abionic

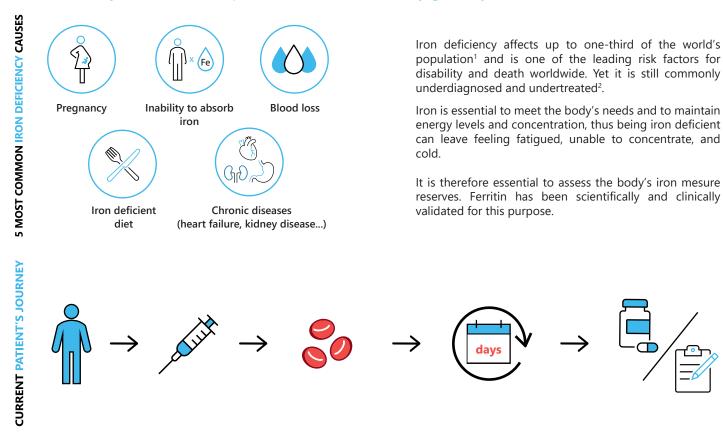
## IVD CAPSULE FERRITIN ON THE ABIOSCOPE® THE FIRST POINT-OF-CARE FERRITIN QUANTITATIVE ASSAY

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.



Abionic has developed the **IVD CAPSULE Ferritin**, a quantitative serological assay at the point-of-care offering health care professionnals (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.



Health Care Centers

Abionic's IVD CAPSULE Ferritin

from one drop of blood





Quantitative Ferritin levels within 5 minutes

Immediate and personalized health care professional advices

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<sup>®</sup> and a laboratory reference method.

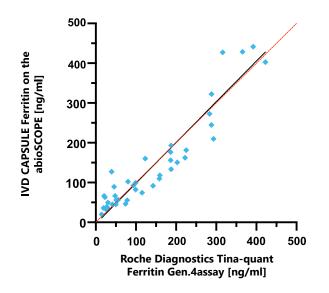


Figure 1. Method comparison Abionic IVD CAPSULE Ferritin assay on the abioSCOPE device versus Roche Diagnostics Tina-quant Ferritin Gen.4 assay. The red dashed line is the identity line and the plain black line the Non-Weighted Deming regression line.

41 whole blood samples were analyzed on the **abioSCOPE**<sup>®</sup>, 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% CI: 0.86 to 1.19]x - 3.76 [-23.72 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>.

#### **DISRUPTIVE NANOFLUIDIC 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.

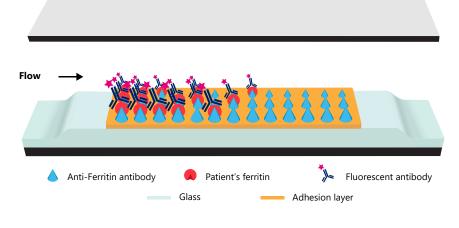


Figure 2. Cross-section through a nanofluidic biosensor



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



#### UNIQUE NANOFLUIDIC IMMUNOASSAY BASED PLATFORM

The abioSCOPE<sup>®</sup>: 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

abioSCOPE is a trademark of Abionic. © 2021 Abionic Published by: Abionic SA Route de la Corniche 5 1066 Epalinges Switzerland products@abionic.com

