

Haemochromatosis StripAssays®

The easy way to test for Haemochromatosis using established innovations in diagnostics

Haemochromatosis Assays. Key to efficient therapy.

Hereditary haemochromatosis is a common genetic disorder of iron metabolism. It results in a progressive accumulation of iron in various organs, such as liver, heart and pancreas. Common complications include liver cirrhosis, diabetes, arthritis or cardiomyopathies. Premature death due to liver cancer or organ failure may occur if the condition is left untreated. Early diagnosis is of paramount importance, as it allows for a simple and effective treatment (therapeutic bleeding) and a virtually normal life for affected individuals.

Classical or type 1 haemochromatosis is caused by mutations in the HFE gene. Less common non-HFE related forms of haemochromatosis are due to mutations in other genes involved in iron metabolism, such as Transferrin Receptor 2 (TFR2) and Ferroportin (FPN1). As they all code for proteins with an important role in regulating body iron stores, mutated forms can lead to iron accumulation in tissues and organs and can ultimately disrupt their normal functions.

The Haemochromatosis StripAssays[®] offer an easy way to identify the most common mutations in genes contributing to hereditary iron overload. Established innovations in diagnostics by ViennaLab thus aid in the early identification and effective therapy.

Gene	Cellular Function	Status	Therapy	Quality of Life
HFE	Iron Absorption	wildtype		+++
		mutated	\checkmark	++
TFR2	Iron Uptake	wildtype		+++
		mutated	\checkmark	++
FPN1	Iron Export	wildtype		+++
		mutated	\checkmark	++

The Assays



The ViennaLab Haemochromatosis StripAssays[®] meet customer requirements

Requirement	ViennaLab's offer
Easy	Three simple steps. 6 h. Done.
Reliable	Probes for variants and controls combined on one teststrip.
Versatile	Automated or manual processing.
Affordable	Incubator.Thermocycler. Shaker. That is all you need. Software for interpretation of results is optional.

The ViennaLab Haemochromatosis StripAssays® combine all these requirements.

The ViennaLab Haemochromatosis StripAssays®

- are based on reverse-hybridization of biotinylated PCR products
- combine probes for variants and controls in a parallel array of allele-specific oligonucleotides
- work with immobilized oligos on a teststrip
- generate test results by enzymatic color reaction easily visible to the naked eye

Mutations detected

Haemochromatosis StripAssay[®] A: 12 HFE, 4 TFR2 and 2 FPN1 mutations

Haemochromatosis StripAssay[®] B: 3 most common HFE mutations: H63D, S65C, C282Y

The three steps of the ViennaLab Haemochromatosis StripAssays®

Step	Requirement
1. Amplification: Multiplex PCR-amplification. Simultaneous biotin-labeling	Thermocycler
2. Hybridization: Directly on the StripAssay [®] teststrips	Incubator
3. Identification: Labeled products detected by streptavidin-alkaline phosphatase	Naked eye or scanner & software

Order Information:

Haemochromatosis StripAssay® A: 4-220 (20 tests/kit) Haemochromatosis StripAssay® B: 4-210 (20 tests/kit)

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