r-biopharm®

Human genetics

Highest precision in the detection of genetic predispositions

07/2023

Practical:
Same workflow and same cycler profile for all RIDA®GENE products

Innovative:
Patented detection technology for point mutations:
No melting curve analysis necessary

Rapid:
Results in less than 2 hours

More information:

https://r-b.io/1h

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Benefits

Simplified evaluation of results:
Optimization of work processes through the automatic interpretation software RIDA®SEEK

Quality:
Development and manufacturing in Germany under ISO 13485

Reliable:
All controls (Human Control and Positive Control, respectively) are included in the kit

Test format:
Kit is sufficient for 100 reactions

Human genetic diagnostics

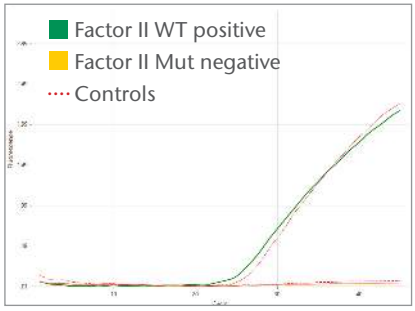
Human genetics is now of great importance in all fields of medicine, and deals with the hereditary basis of human diseases (ankylosing spondylitis, venous thromboembolism, lactose intolerance).

Our human genetics product line offers a rapid and reliable solution for the detection of genetic predispositions associated with specific diseases. This is done using special, modern SNP (single nucleotide polymorphism) technology, which detects point mutations in real-time PCR.

Early detection of genetic predispositions using the RIDA®GENE tests opens up the possibility of initiating timely therapies.

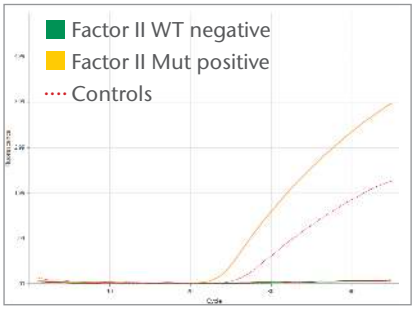
Convenient evaluation with RIDA®SEEK using the example of RIDA®GENE Factor II

Factor II homozygous WT



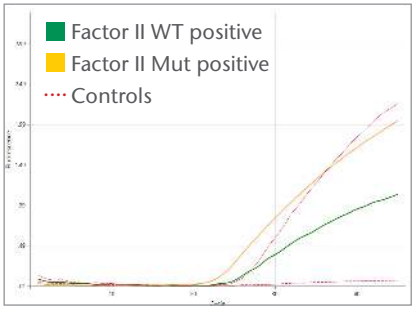
Detection channel 465/510
Detection channel 533/580

Factor II homozygous Mutant



Detection channel 465/510
Detection channel 533/580

Factor II heterozygous



Detection channel 465/510
Detection channel 533/580

Human genetics

HLA-B27
The RIDA®GENE HLA-B27 Test detects the HLA-B27 allel in human samples.
An association with specific inflammatory, rheumatic diseases, spondyloarthritis (SpA), particularly ankylosing spondylitis (AS) is given in carriers of HLA-B27 alleles [1,2]. The test is not to be used for tissue typing.

Factor II / Factor V
The RIDA®GENE Factor II kit qualitatively detects the point mutation G20210A in the human factor II (prothrombin) gene in genomic DNA. This leads in homo- and heterozugous patients to an increased expression rate and thus to an increased prothrombin-level which is considered a risk factor for blood clotting disorders [3,5].

The RIDA®GENE Factor V kit detects the point mutation G1691A in the human factor V gene (Factor V Leiden mutation) in genomic DNA. Due to this point mutation Factor V is broken down less which results in a hypercoagulable state [5]. The resulting Factor V Leiden is widely distributed with high prevalence in Europa and with practically no cases in Asia or Africa [4].

Lactose intolerance
The RIDA®GENE Lac Intol test qualitatively detects and differentiates C13910 & G22018 as well as their point mutations C13910T & G22018A in the human MCM6 gene. These mutations are associated with lifelong lactase persistance [6,7].

Functions and benefits of RIDA®SEEK

- Optimization of laboratory workflow through automated result interpretation and documentation of analysis with RIDA®GENE real-time PCR assays
- Quality management made easy e.g. by monitoring of controls.
- Easier to train new employees – the software's user interface is intuitive.
- Simplifies data management and avoids errors through direct communication with the laboratory information system

Information on the portfolio

Ordering information

Product	Matrix	Parameters	Art. No.
Real-time PCR			
RIDA®GENE HLA-B27	Whole blood EDTA samples	Spondylitis ankylosans (Morbus Bechterew)	PY0205
RIDA®GENE Factor II	Whole blood EDTA samples	Venous thromboembolism (G20210A)	PY1205
RIDA®GENE Factor V	Whole blood EDTA samples	Venous thromboembolism (G1691A)	PY1210
RIDA®GENE Lac Intol	Whole blood EDTA samples	Lactose intolerance (C13910T & G22018A)	PY4215
RIDA®SEEK – comprehensive one-program evaluation and documentation assistant			
RIDA®SEEK			ZRIDASEEK

Contact us for more information:
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2. Schlosstein L, Terasaki PI, Bluestone R, Pearson CM. High association of an HL-A antigen, W27, with ankylosing spondylitis. N Engl J Med 1973; 288:704-6.
3. Zhang S, Taylor AK, Huang X, Luo B, Spector EB, Fang P, et al. Venous thromboembolism laboratory testing (factor V Leiden and factor II c.*97G>A), 2018 update: a technical standard of the American College of Medical Genetics and Genomics (ACMG). Genet Med. 2018;20(12):1489-98.
4. Kujovich JL. Factor V Leiden thrombophilia. Genet Med. 2011;13(1):1-16.
5. Safavi-Abbasi S, Di Rocco F, Nakaji P, Feigl GC, Gharabaghi A, Samii M, et al. Thrombophilia Due to Factor V and Factor II Mutations and Formation of a Dural Arteriovenous Fistula: Case Report and Review of a Rare Entity. Skull Base. 2008;18(2):135-43.
6. Misselwitz B, Butter M, Verbeke K, Fox MR. Update on lactose malabsorption and intolerance: pathogenesis, diagnosis and clinical management. Gut. 2019;68(11):2080-91.
7. Catanzaro R, Sciuto M, Marotta F. Lactose Intolerance—Old and New Knowledge on Pathophysiological Mechanisms, Diagnosis, and Treatment. SN Comprehensive Clinical Medicine. 2021;3:499-509.