

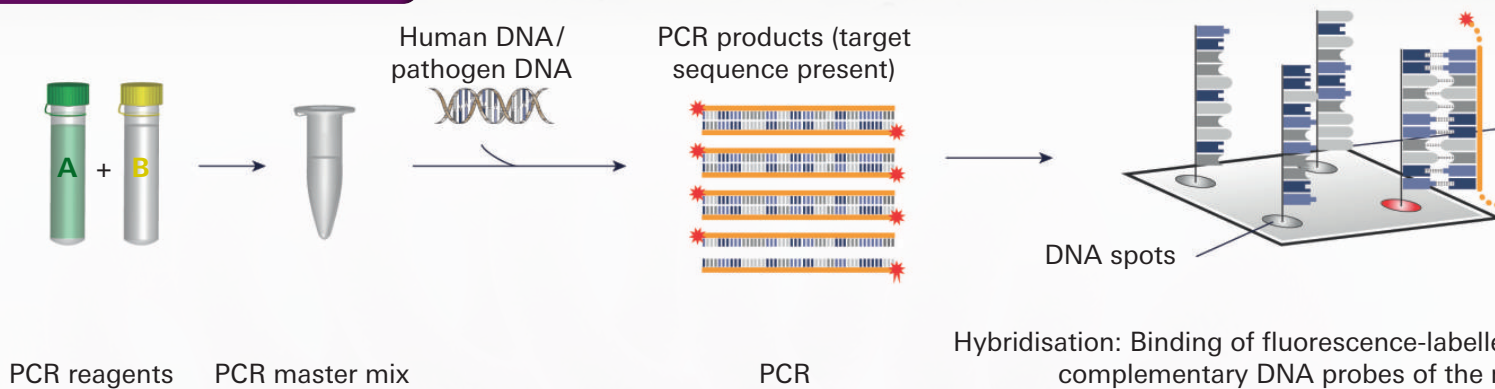


Products for molecular diagnostics

EUROIMMUN's comprehensive portfolio

- **EUROArray** – Reliable multiplex test system providing simultaneous detection of different infectious agents or disease-associated genetic traits
- **EURORealTime** – Fast detection of up to three infectious agents in one preparation
- **User-friendly assays** – Simple test performance and evaluation
- **Flexible automation** – Suitable solutions for all requirements

EUROArray test principle



EUROIMMUN's EUROArray test systems

- Multiplex tests for the detection of different target sequences in a single run, e.g. DNA sections of different pathogens or of human gene variants, including all required controls
- Highly reliable due to a large number of integrated controls
- Ready-for-use reagents
- Suited for different sample materials
- For EUROArray Direct assays: no separate DNA isolation from sample material required
- Modular test procedure, adaptable to the individual sample throughput, also suitable for high throughputs
- Standardised and automated result interpretation using the EUROArrayScanner and EUROArrayScan software

Infection parameters

EUROArray Dermatomycosis

- Worldwide broadest multiplex test for dermatomycosis pathogens, detection of 56 dermatophyte, yeast and mould species in total
- Significantly faster, more specific and more objective than detection using culture methods

EUROArray HSV1/2 VZV

- Detection and differentiation of herpes simplex virus types 1 and 2 as well as varicella zoster virus
- For fast differentiation from other dermatoses, especially if clinical differentiation is difficult

EUROArray HPV

- Detection and complete subtyping of 18 high-risk and 12 low-risk HPV types
- Meets international criteria for HPV screening¹
- VALGENT-validated DNA test providing HPV detection based on the viral oncogenes E6 and E7²

EUROArray PneuVir

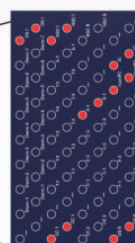
- Multiplex test for detection of 17 different respiratory viruses
- Differentiation, esp. to distinguish seasonal viruses

EUROArray STI

- Detection and differentiation of up to eleven sexually transmitted pathogens
- Reliable even in asymptomatic or multiple infections

¹ Meijer et al. *Int J Cancer* 124:516–520 (2009).

² Viti J. et al. *J Clin Virol* 108:38–42 (2018).



Project ID:	1000000000	Test ID:	1000000000
Sample Name:	1000000000	Result:	1000000000
Execution:	1000000000	Run Date:	1000000000

EUROIMMUN	EUROARRAY
1. HLA-B*57:01	1. HLA-B*57:01
2. HLA-B*57:01	2. HLA-B*57:01
3. HLA-B*57:01	3. HLA-B*57:01
4. HLA-B*57:01	4. HLA-B*57:01
5. HLA-B*57:01	5. HLA-B*57:01
6. HLA-B*57:01	6. HLA-B*57:01
7. HLA-B*57:01	7. HLA-B*57:01
8. HLA-B*57:01	8. HLA-B*57:01
9. HLA-B*57:01	9. HLA-B*57:01
10. HLA-B*57:01	10. HLA-B*57:01
11. HLA-B*57:01	11. HLA-B*57:01
12. HLA-B*57:01	12. HLA-B*57:01
13. HLA-B*57:01	13. HLA-B*57:01
14. HLA-B*57:01	14. HLA-B*57:01
15. HLA-B*57:01	15. HLA-B*57:01
16. HLA-B*57:01	16. HLA-B*57:01
17. HLA-B*57:01	17. HLA-B*57:01
18. HLA-B*57:01	18. HLA-B*57:01
19. HLA-B*57:01	19. HLA-B*57:01
20. HLA-B*57:01	20. HLA-B*57:01
21. HLA-B*57:01	21. HLA-B*57:01
22. HLA-B*57:01	22. HLA-B*57:01
23. HLA-B*57:01	23. HLA-B*57:01
24. HLA-B*57:01	24. HLA-B*57:01
25. HLA-B*57:01	25. HLA-B*57:01
26. HLA-B*57:01	26. HLA-B*57:01
27. HLA-B*57:01	27. HLA-B*57:01
28. HLA-B*57:01	28. HLA-B*57:01
29. HLA-B*57:01	29. HLA-B*57:01
30. HLA-B*57:01	30. HLA-B*57:01
31. HLA-B*57:01	31. HLA-B*57:01
32. HLA-B*57:01	32. HLA-B*57:01
33. HLA-B*57:01	33. HLA-B*57:01
34. HLA-B*57:01	34. HLA-B*57:01
35. HLA-B*57:01	35. HLA-B*57:01
36. HLA-B*57:01	36. HLA-B*57:01
37. HLA-B*57:01	37. HLA-B*57:01
38. HLA-B*57:01	38. HLA-B*57:01
39. HLA-B*57:01	39. HLA-B*57:01
40. HLA-B*57:01	40. HLA-B*57:01
41. HLA-B*57:01	41. HLA-B*57:01
42. HLA-B*57:01	42. HLA-B*57:01
43. HLA-B*57:01	43. HLA-B*57:01
44. HLA-B*57:01	44. HLA-B*57:01
45. HLA-B*57:01	45. HLA-B*57:01
46. HLA-B*57:01	46. HLA-B*57:01
47. HLA-B*57:01	47. HLA-B*57:01
48. HLA-B*57:01	48. HLA-B*57:01
49. HLA-B*57:01	49. HLA-B*57:01
50. HLA-B*57:01	50. HLA-B*57:01
51. HLA-B*57:01	51. HLA-B*57:01
52. HLA-B*57:01	52. HLA-B*57:01
53. HLA-B*57:01	53. HLA-B*57:01
54. HLA-B*57:01	54. HLA-B*57:01
55. HLA-B*57:01	55. HLA-B*57:01
56. HLA-B*57:01	56. HLA-B*57:01
57. HLA-B*57:01	57. HLA-B*57:01
58. HLA-B*57:01	58. HLA-B*57:01
59. HLA-B*57:01	59. HLA-B*57:01
60. HLA-B*57:01	60. HLA-B*57:01
61. HLA-B*57:01	61. HLA-B*57:01
62. HLA-B*57:01	62. HLA-B*57:01
63. HLA-B*57:01	63. HLA-B*57:01
64. HLA-B*57:01	64. HLA-B*57:01
65. HLA-B*57:01	65. HLA-B*57:01
66. HLA-B*57:01	66. HLA-B*57:01
67. HLA-B*57:01	67. HLA-B*57:01
68. HLA-B*57:01	68. HLA-B*57:01
69. HLA-B*57:01	69. HLA-B*57:01
70. HLA-B*57:01	70. HLA-B*57:01
71. HLA-B*57:01	71. HLA-B*57:01
72. HLA-B*57:01	72. HLA-B*57:01
73. HLA-B*57:01	73. HLA-B*57:01
74. HLA-B*57:01	74. HLA-B*57:01
75. HLA-B*57:01	75. HLA-B*57:01
76. HLA-B*57:01	76. HLA-B*57:01
77. HLA-B*57:01	77. HLA-B*57:01
78. HLA-B*57:01	78. HLA-B*57:01
79. HLA-B*57:01	79. HLA-B*57:01
80. HLA-B*57:01	80. HLA-B*57:01
81. HLA-B*57:01	81. HLA-B*57:01
82. HLA-B*57:01	82. HLA-B*57:01
83. HLA-B*57:01	83. HLA-B*57:01
84. HLA-B*57:01	84. HLA-B*57:01
85. HLA-B*57:01	85. HLA-B*57:01
86. HLA-B*57:01	86. HLA-B*57:01
87. HLA-B*57:01	87. HLA-B*57:01
88. HLA-B*57:01	88. HLA-B*57:01
89. HLA-B*57:01	89. HLA-B*57:01
90. HLA-B*57:01	90. HLA-B*57:01
91. HLA-B*57:01	91. HLA-B*57:01
92. HLA-B*57:01	92. HLA-B*57:01
93. HLA-B*57:01	93. HLA-B*57:01
94. HLA-B*57:01	94. HLA-B*57:01
95. HLA-B*57:01	95. HLA-B*57:01
96. HLA-B*57:01	96. HLA-B*57:01
97. HLA-B*57:01	97. HLA-B*57:01
98. HLA-B*57:01	98. HLA-B*57:01
99. HLA-B*57:01	99. HLA-B*57:01
100. HLA-B*57:01	100. HLA-B*57:01

ed PCR products to
microarray

Evaluation of the microarray: fluorescence signals
on spots with hybridised PCR products

Human-genetic parameters

EUROArray FV/FII+/MTHFR Direct

- Detection of the most important genetic risk factors for thrombophilia and hyperhomocysteinaemia
- Reliability of results due to recognition of potentially interfering adjacent, non-disease-relevant mutations
- Different test formats available: single or combined parameters

EUROArray Haemochromatosis Direct

- Detection of the most frequent point mutations in the HFE gene which are associated with haemochromatosis
- Reliability of results due to recognition of potentially interfering adjacent, non-disease-relevant mutations
- Different test formats available: for two or four point mutations (SNPs)

EUROArray HLA-B27 Direct

- Specific detection of all HLA-B*27 alleles which are associated with rheumatic diseases
- Indicates the possible presence of non-disease-associated alleles

EUROArray HLA-B57:01 Direct

- Determination of all presently known HLA-B*57:01 alleles which are associated with hypersensitivity to the HIV chemotherapeutic agent abacavir

EUROArray HLA-Cw6 Direct

- Detection of HLA-C*06 alleles which are associated with psoriasis and psoriatic arthritis

EUROArray HLA-DQ2/DQ8 Direct/-h Direct

- Detection of all coeliac-disease-relevant alleles of the genotypes HLA-DQ2.2, DQ2.5 and DQ8
- Test available in different versions: also for simultaneous distinction between homo- and heterozygous presence of the HLA-DQ2 alleles

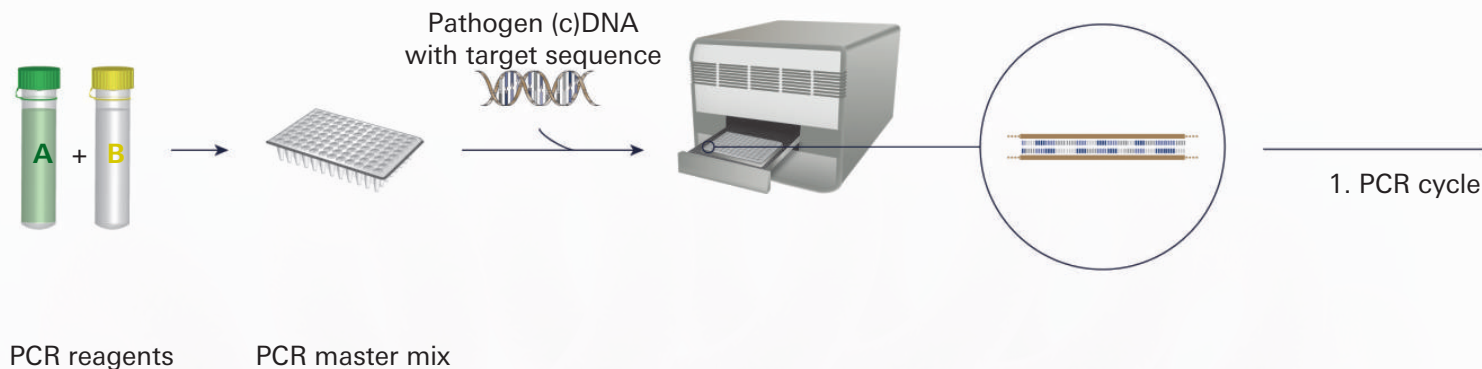
EUROArray APOE Direct

- Determination of the APOE gene variants $\epsilon 2$, $\epsilon 3$ and/or $\epsilon 4$ which are associated with Alzheimer's disease and type III hyperlipoproteinaemia

EUROArray Lactose/Fructose Intolerance Direct

- Detection of SNPs which are associated with lactose intolerance (13910T>C, 22018A>G) and hereditary fructose intolerance (A149P, A174D, N334K, del4E4), including distinction between homo- and heterozygous presence
- Reliability of results due to recognition of potentially interfering adjacent, non-disease-relevant mutations
- Different test formats available: single or combined parameters

EURORealTime test principle



EUROIMMUN's EURORealTime test systems

- Reliable detection of viral or bacterial infectious agents
- Ready-for-use reagents
- One-tube reaction enables reverse transcription of viral RNA and amplification in one preparation
- Standardised, software-based result interpretation using the EURORealTime Analysis software

Infection parameters: SARS-CoV-2

EURORealTime SARS-CoV-2¹

- Fast and specific detection of SARS-CoV-2²
- High sensitivity due to simultaneous detection of two different target sequences (ORF1ab and N genes)
- Suited for throat swabs or saliva
- With FDA EUA

EURORealTime SARS-CoV-2 Fast

- Specific detection of SARS-CoV-2² in approx. 45 min
- Detection of target sequences (ORF1ab and N genes) in two separate fluorescence channels
- Suited for nasopharyngeal swabs

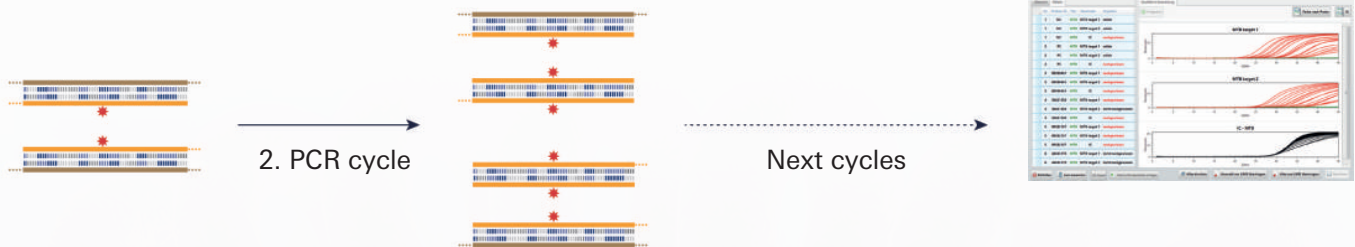
EURORealTime SARS-CoV-2/Influenza A/B³

- Simultaneous detection of SARS-CoV-2 and influenza virus types A and B, including differentiation between these pathogens
- For differential diagnostic clarification of symptoms associated with COVID-19 as well as influenza
- Suited for throat swabs

¹ Not available in Brazil, China, Czech Republic and Italy

² Includes all currently relevant SARS-CoV-2 variants

³ Not available in Brazil, China, and the USA



DNA amplification:
Increasing intensity of fluorescence signal *

Other infection parameters

EURORealTime HSV-1/2⁴

- Detection and differentiation of herpes simplex virus types 1 and 2
- Software-based quantification of the viral load in patient samples with ready-for-use standards
- Suited for swab material, cerebrospinal fluid (CSF) or EDTA plasma samples

EURORealTime MTB⁴

- Reliable detection of all members of the *Mycobacterium tuberculosis* complex thanks to a total of 3 target genes
- Suited for sputum, bronchoalveolar lavage fluid or bronchial secretion samples

EURORealTime Zika Virus⁴

- Highly specific, sensitive detection of ZIKV RNA
- Suited for serum or urine samples

⁴ Not available in the USA

Other test systems

New assays will continuously be added to the EURORealTime test portfolio in the future.

Order overview

EUROArray test systems

EUROArray	Indication	Order no.
Infection parameters		
Dermatomycosis	Dermatomycoses	MN 2850-####
HPV	HPV infections/typing for cancer prevention	MN 2540-####
HSV1/2 VZV	Herpes infections	MN 2530-####-1
PneuVir	Respiratory virus infections	MN 2821-####-1
STI:	Sexually transmitted infections with:	
STI-CT/NG	<i>C. trachomatis</i> , <i>N. gonorrhoeae</i>	MN 2830-####-2
STI-7	<i>H. ducreyi</i> , <i>M. genitalium</i> , <i>M. hominis</i> , <i>T. pallidum</i> , <i>T. vaginalis</i> , <i>U. parvum</i> , <i>U. urealyticum</i>	MN 2830-####-1
STI-11	in addition to STI-7: <i>C. trachom.</i> , <i>N. gon.</i> , herpes simplex virus 1/2	MN 2830-####
Human-genetic parameters		
APOE Direct	Alzheimer's disease	MN 5710-####-V
FV/FII+ /MTHFR Direct: Factor V Leiden/Factor II 20210G>A/ MTHFR 677C>T/MTHFR 1298A>C Factor V Leiden/Factor II 20210G>A Factor V Leiden Factor II 20210G>A MTHFR 677C>T/MTHFR 1298A>C	Thrombosis, thrombophilia, hyperhomocystein- aemia	MN 5820-####-V MN 5821-####-V MN 5822-####-V MN 5823-####-V MN 5824-####-V
Haemochromatosis (4 SNP+) Direct	Haemochromatosis	MN 5520-####-V
Haemochromatosis (2 SNP+) Direct		MN 5521-#### V
HLA-B27 Direct	Rheumatic diseases, e.g. Bechterew's disease	MN 5110-#### V
HLA-B57:01 Direct	Abacavir hypersensitivity	MN 5210-####-V
HLA-Cw6 Direct	Psoriasis, psoriatic arthritis	MN 5410-####-V
HLA-DQ2/DQ8-h Direct	Coeliac disease	MN 5320-####-V
HLA-DQ2/DQ8 Direct		MN 5321-####-V
Lactose/Fructose Intolerance Direct	Lactose/fructose intolerance	MN 5350-####-V
Lactose Intolerance Direct		MN 5351-####-V
Fructose Intolerance Direct		MN 5352-####-V

Usually, not all of the instruments/kits listed are validated for the processing of each test system (CE-IVD marking).
Please contact your local EUROIMMUN representative for a suitable automation solution.

Instruments and accessories

Product	Features	Order no.
Automated Workstation Pre-NAT II	Automated sample preparation and PCR setup	YG 9102-0101
Pre-NAT II NA EU Kit	Extraction kit for the automated system (Automated Workstation Pre-NAT II)	ZM 9102-0960 ¹
EUROArrayProcessor	Automated EUROArray processing	YG 0671-0101-1
EUROArray Scanner incl. EUROArrayScan software	Automated evaluation of EUROArray assays	YG 0602-0101

¹ Validated as part of the complete system (CE-IVD marking) if the respective automated system is validated for the processing; if used separately: for research use only, not für in vitro diagnostics.

Order overview

EURORealTime test systems

EURORealTime	Indication	Order no.
EURORealTime HSV-1/2	Herpes infections	MP 2530-####
EURORealTime MTB	Tuberculosis, infection with bacteria of the <i>Mycobacterium tuberculosis</i> complex (MTBC)	MP 2145-####
EURORealTime SARS-CoV-2	SARS-CoV-2 infection	MP 2606-####
EURORealTime SARS-CoV-2 Fast	SARS-CoV-2 infection	MP 2606-####-8
EURORealTime SARS-CoV-2/Influenza A/B	Symptoms associated with COVID-19/influenza	MP 2606-####-20
EURORealTime Zika Virus	Zika virus infection	MP 2668-####

Usually, not all of the instruments/kits listed are validated for the processing of each test system (CE-IVD marking).
Please contact your local EUROIMMUN representative for a suitable automation solution.

Instruments and accessories

Product	Features	Order no.
Automated Workstation Pre-NAT II	Automated sample preparation and PCR setup	YG 9102-0101
Pre-NAT II NA EU Kit	Extraction kit for the automated system (Automated Workstation Pre-NAT II)	ZM 9102-0960 ¹
Eonis Q96	Real-Time PCR cycler	YG 1092-0101 ²
EURORealTime Analysis software	Software to support the analysis and evaluation of the PCR cycler's measurement values	YG 0661-0101

¹ Validated as part of the complete system (CE-IVD marking) if the respective automated system is validated for the processing; if used separately: for research use only, not for in vitro diagnostics.

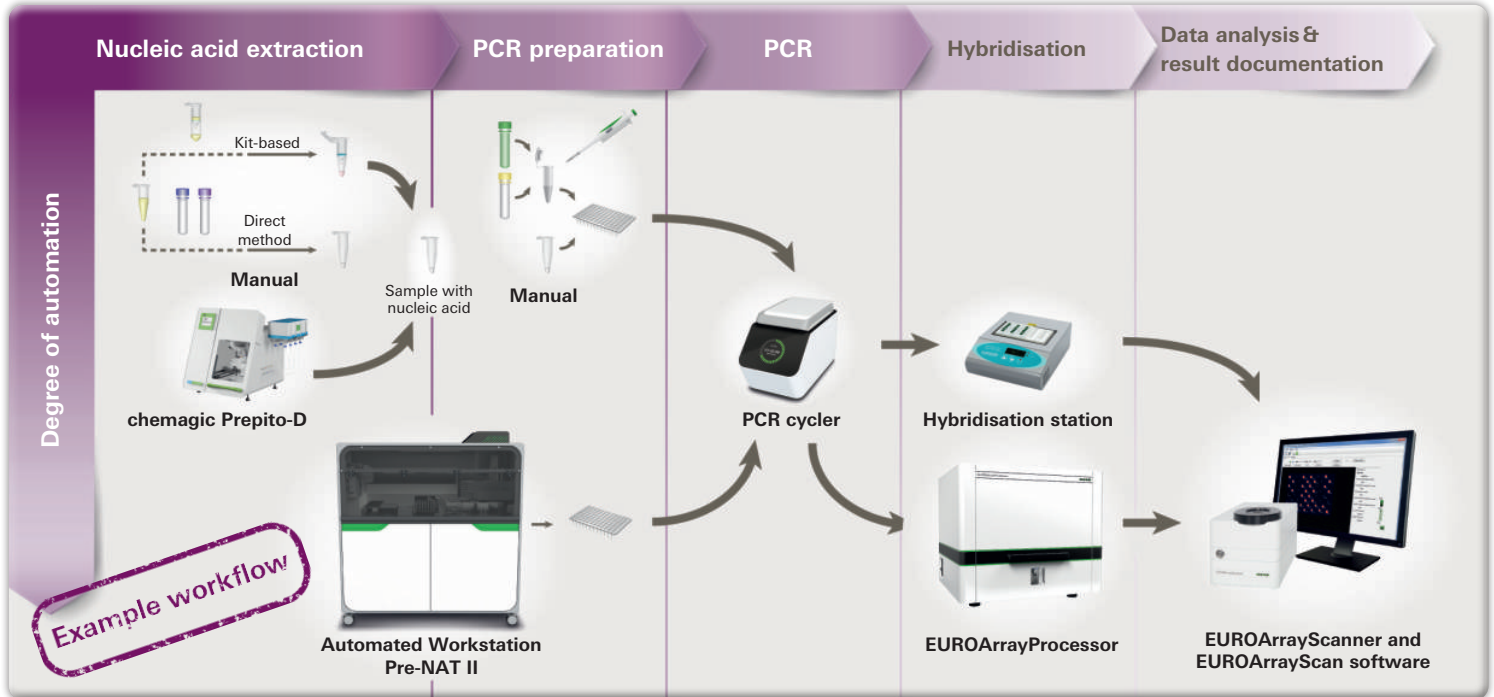
² Validated as part of the complete system for MP 2606-####, MP 2606-####-8 and MP 2606-####-20 (CE-IVD marking); if used separately: for research use only, not for in vitro diagnostics.



Automation options

EUROArray

- CE-IVD validated processing with different PCR cyclers
- Automated data analysis and result reporting using the EUROArrayScanner and EUROArrayScan software
- Bidirectional connection of the EUROArrayScan software to a laboratory information system (LIS) possible



EURORealTime

- CE-IVD validated processing with different real-time PCR cyclers
- Automated data analysis and result reporting using the EURORealTime Analysis software
- Bidirectional connection of the EUROArrayScan software to a laboratory information system (LIS) possible

