



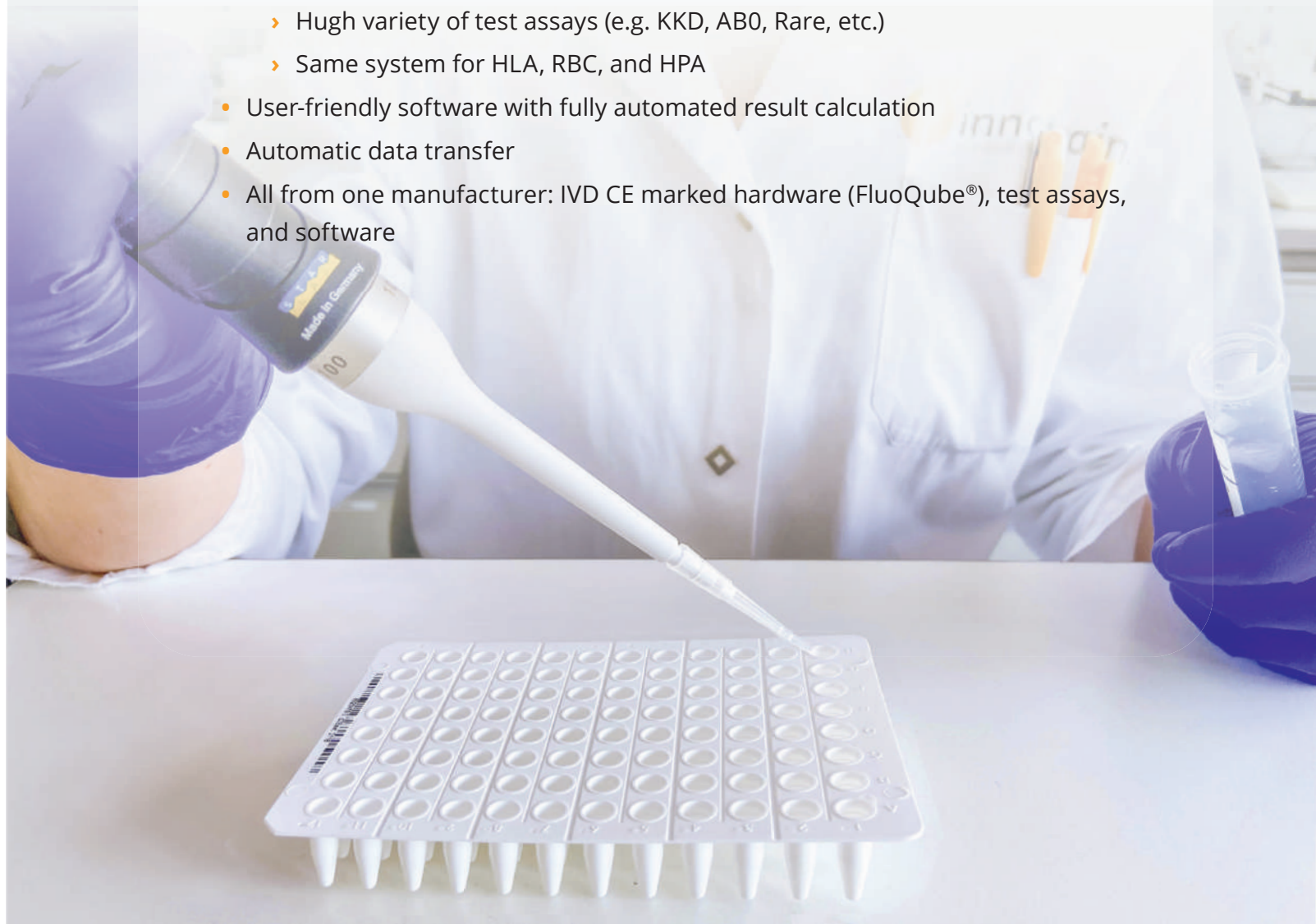
RBC-FluoGene®

*The prestigious blood group
genotyping by real-time PCR*

Your advantages with inno-train



- Save your precious working time:
 - › Automated genotyping: <1 hour
 - › Minimal hands-on time: < 5 minutes
- Well-established TaqMan® technique
- Small DNA-usage (e.g. 150 ng per RBC-FluoGene^{NX} ABO plus typing)
- Ready-to-use kits consists of:
 - › FluoMix (incl. Taq)
 - › PCR plates (incl. dried primer/probe-mixes)
 - › Optical clear sheets
- Highest safety
 - › Barcoded tests
 - › Closed system
- Flexibility:
 - › FluoQube®: High-performance real-time PCR
 - › 70 blood group antigens / phenotypic variants in one test
 - › Hugh variety of test assays (e.g. KKD, AB0, Rare, etc.)
 - › Same system for HLA, RBC, and HPA
- User-friendly software with fully automated result calculation
- Automatic data transfer
- All from one manufacturer: IVD CE marked hardware (FluoQube®), test assays, and software



Blood group genotyping with inno-train

RBC-FluoGene® is the perfect solution for your blood group typing.

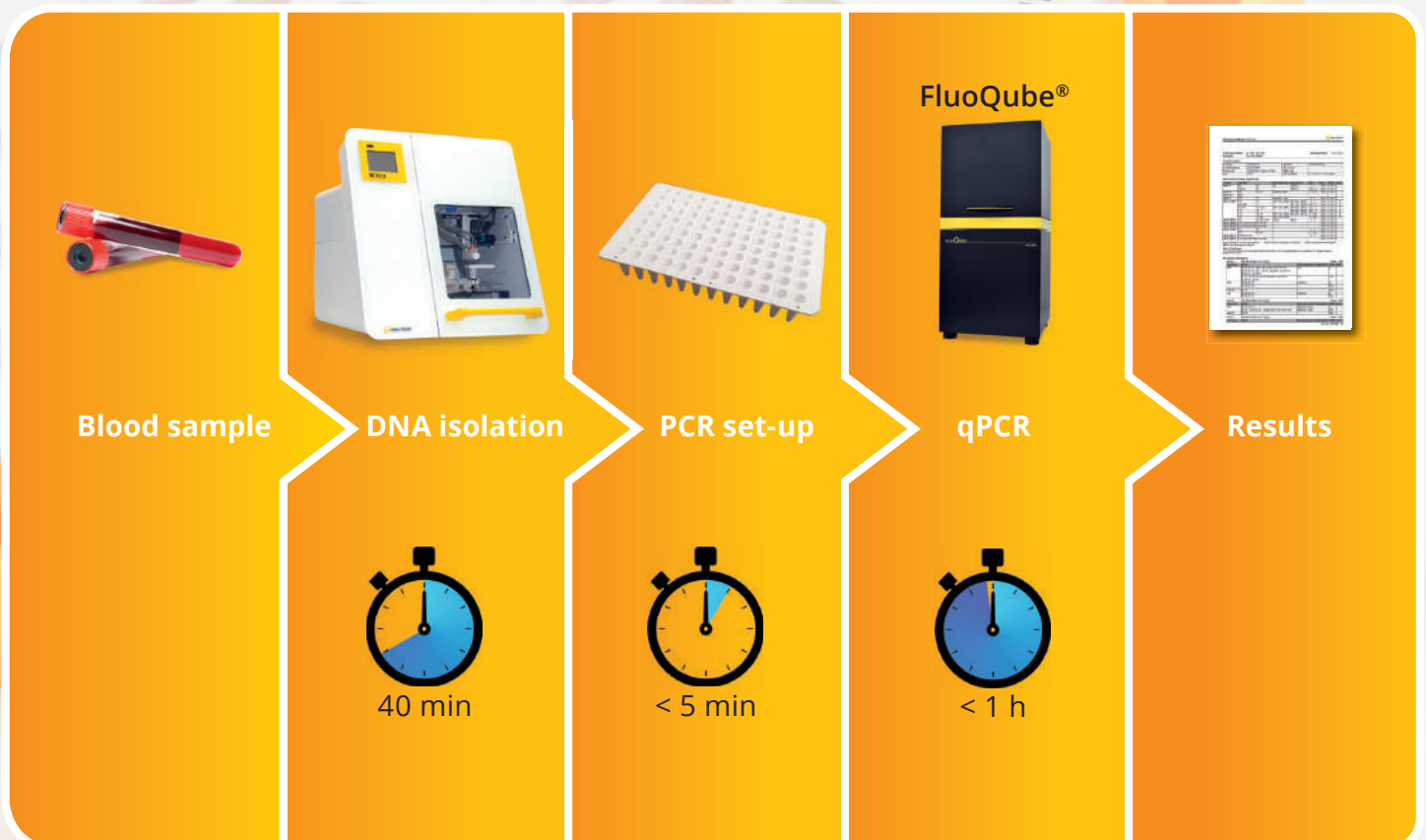
It combines a minimal hands-on time of less than 5 minutes with a robust and fast real-time PCR. The closed system with automated data transfer offers maximal safety for your typing, especially with regard to IVDR 2017/746.

Our products have been designed in cooperation with immunohaematological reference labs and are all CE IVD marked.

The assays are based on the well-established TaqMan technique and can be run on our real-time cycler **FluoQube®**.

We offer perfectly synced test assays, instruments and software from one hand.

Workflow



FluoGene® Software

Simple to use and highly precise in diagnostics.

Measured raw data is automatically imported into the FluoGene® software based on the plate barcodes without the risk of mix-ups. Genotype results are displayed immediately in numerical ISBT nomenclature, and associated phenotypes are shown in antigen and an alternative notation. Comprehensive functions such as frequency filters (for *RHD*, *RHCE* and *ABO*), selectable zygosity display in the *RHD*, and much more make it easier to interpret the results.

All results can be printed and saved as pdf reports or exported to a laboratory information and management system.

The new software functions at a glance

The screenshot displays the FluoGene software interface with several annotations pointing to specific features:

- All blood groups at a glance:** Points to the left sidebar menu.
- Genotypes and predicted phenotypes in ISBT nomenclature:** Points to the main results table.
- Associated SNPs:** Points to the 'Associated SNPs' column in the results table.
- Filter options by allele frequencies:** Points to the 'Allele Category' filter on the right sidebar.
- Qualitative call for each reaction:** Points to the 'Score' column in the 'Position H2 | RHD*Exon4-M2.2' table.
- Optional display of the expected reaction patterns, allele selection and display of detectable alleles:** Points to the 'Reaction Details' and 'Detectable Alleles' options on the right sidebar.

Main Results Table:

System	Genotype	Predicted Phenotype 1	Predicted Phenotype 2	Associated SNPs
RHD	RHD*01/01N.01	H H	RH: 1	D+
RHCE	RHCE*01/02	H H	RH: 2,-3,4,5,-10,-20	C+,E-,c+,e+,V-,VS-
Kell	KEL*01.01/02	KEL: 1,2,-3,4,-6,7	K+k+,Kp(a-b+),Js(a-b+)	578C, 578C>T, 841C, 1790T
Kidd	JK*01/02	JK: 1,2	Jk(a-b+)	838G, 838G>A
Duffy	FY*02	FY: -1,2	Fy(a-b+)	-67T, 125G>A
MNS	GYPA*02 GYPB*04	MNS: -1,2 MNS: -3,4,5	M.N+ S.s+U+	71G>A, 72T>G 143C, 143C
Dombrock	DO*01/02	DO: 1,2,4,5	Do(a-b+),Hy+,Jo(a+)	323G, 350C, 793G, 793G>A
Lutheran	LU*02	LU: -1,2	Lu(a-b+)	230G
Yt	YT*01	YT: 1,-2	Yt(a-b+)	1057C
Diego	DI*02	DI: -1,2	Di(a-b+)	2561C
Knops	KN*01	KN: 1,-2	Kn(a-b+)	4681G
Colton	CO*01.01	CO: 1,-2	Co(a-b+)	134C
Landsteiner-Wiener	LW*05	LW: 5,-7	LW(a-b+)	299A
Hemoglobin subunit beta	HbS*HBB			

Position H2 | RHD*Exon4-M2.2

	CT	CT-Factor	Gradient	Average	Q-Value	Cut Off	Score
Control	24	1.5	201 %	13 %	20.1 (3)	2	Positive
Reaction	27	1.3	481 %	24 %	31.1 (2)	6	Positive

RHD Allel
RHD 05-22 v1.5

Allele Category:

- ☒ High Frequency (H)
- ☐ Low Frequency (L)
- ☐ Unknown Frequency (U)
- ☐ Dd filter

Display:

- ☒ Excluded Combinations
- ☐ Crossreactivity

Report:

- ☐ Reaction Data
- ☒ Detailed Result

Nomenclature:

- ☒ Predicted Phenotype 1
- ☐ Predicted Phenotype 2
- ☐ Hematos
- ☐ Associated SNPs

Display:

- ☒ Reaction Details

Information:

Plate-ID R911123 01 extend 1707
Lot R911123-2
NC ☒

Options:

- ☒ Multiport
- ☐ Allele Selection
- ☐ Detectable Alleles

5 Rows

RBC-FluoGene® products

		ABO basic	ABO plus	CDE	D weak/ variant	KKD	vERYfy	vERYfy eXtend	CDE eXtend	Rare
		Article No. 001 086 010	Article No. 001 080 010	Article No. 001 082 010	Article No. 001 083 010	Article No. 001 089 010	Article No. 001 081 010	Article No. 001 091 010	Article No. 001 092 010	Article No. 001 085 010
ABO	ABO*A1.01	+	+	-	-	-	-	-	-	-
	ABO*A2.01	+	+	-	-	-	-	-	-	-
	A variants, e.g. ABO*AW	-	+	-	-	-	-	-	-	-
	ABO*B.01	+	+	-	-	-	-	-	-	-
	B variants, e.g. ABO*BW	-	+	-	-	-	-	-	-	-
	ABO*O.01	+	+	-	-	-	-	-	-	-
	ABO*O.02	+	+	-	-	-	-	-	-	-
	O variants	-	+	-	-	-	-	-	-	-
RHD	RHD*01	-	-	+	-	-	E3, E5, E10	+	+	-
	RHD*01N.01 (RHD neg)	-	-	+	+	-	+	+	+	-
	RHD*08N.01 (RHD psi)	-	-	+	-	-	+	+	+	-
	RHD variants by exon pattern	-	-	+	-	-	-	+	+	-
	RHD variants by SNPs	-	-	+	+	-	-	+	+	-
	Separation of RHD*DAU0 vs. other RHD*DAU alleles	-	-	+	-	-	-	+	+	-
	Separation RHD*03 vs. RHD*04	-	-	-	-	-	-	+	+	-
	RHD*weak D types	-	-	-	+	-	-	+	+	-
	RHD*DEL	-	-	-	+	-	-	+	+	-
	RHCE	-	-	+	-	-	+	+	+	-
RHCE	RH:8 (Cw+)	-	-	+	-	-	+	+	+	-
	RH:9 (Cx+)	-	-	-	-	-	-	-	+	-
	RH:10 (V-)	-	-	-	-	-	-	+	+	-
	RH:20 (VS+)	-	-	+	-	-	-	+	+	-
	RH:19 (hrS-)	-	-	-	-	-	-	-	+	-
	RH:31 (hrB-)	-	-	-	-	-	-	-	+	-
	RH:43 (Crawford+)	-	-	-	-	-	-	-	+	-
	RH:46 (Sec-)	-	-	-	-	-	-	-	+	-
	RH:48 (JAL+)	-	-	-	-	-	-	-	+	-
	Kell	-	-	-	-	+	+	+	-	-
Kell	KEL*01.01, KEL*02	-	-	-	-	+	+	+	-	-
	KEL*02.03 (Kpa) / KEL*02 (Kpb)	-	-	-	-	+	-	+	-	+
	KEL*02.06 (Jsa) / KEL*02 (Jsb)	-	-	-	-	+	-	+	-	+
Kidd	JK*01, JK*02	-	-	-	-	+	+	+	-	-
Duffy	FY*01, *02, *02N.01, *02W.01	-	-	-	-	+	+	+	-	-
MNS	GYP A*01, GYP A*02	-	-	-	-	-	+	+	-	-
	GYP B*03, GYP B*04	-	-	-	-	-	+	+	-	-
	GYP B*03N.01, *03N.03	-	-	-	-	-	+	+	-	-
	GYP B*04N.01	-	-	-	-	-	-	+	-	-
	GYP B*05N.01, *05N.02	-	-	-	-	-	-	+	-	-
Dombrock	DO*01, DO*02	-	-	-	-	-	+	+	-	+
	DO*02.-04 (Hy-)	-	-	-	-	-	-	+	-	+
	DO*01.-05 (Jo(a-))	-	-	-	-	-	-	+	-	+
Lutheran	LU*01, LU*02	-	-	-	-	-	-	+	-	+
Cartwright	YT*01, YT*02	-	-	-	-	-	-	+	-	+
Diego	DI*01, DI*02	-	-	-	-	-	-	+	-	+
	DI*02.03, DI*02.04	-	-	-	-	-	-	-	-	+
Colton	CO*01.01, CO*02	-	-	-	-	-	-	+	-	+
Knops	KN*01, KN*02	-	-	-	-	-	-	+	-	+
Landsteiner-Wiener	LW*05, LW*07	-	-	-	-	-	-	+	-	+
Hemoglobin subunit beta	HBB, HBS	-	-	-	-	-	-	+	-	-

NEW

RBC-FluoGene® Q - open for all real-time devices

- qPCR kits with 1 to 2 primer-probe mixes in liQuid format
- Ready-to-use reagents, including buffer and control DNAs
- Suitable for all common real-time PCR devices

RBC-FluoGene® D weak Screen Q: D weak Type 1/2/3 and 4.0/4.1, 4.2, 4.3 detection

- 1st mix detects *RHD*01W.1*, *RHD*01W.2* and *RHD*01W.3* (= D+)
- 2nd mix: Separation of *RHD*09* allele cluster (= separation of *D weak type 4.0/4.1* from 4.2 and 4.3)
- Evaluation is performed by the Ct-value calculation of the used real-time device

Article no.: 001 093 100Q, 2 mixes/test, 100 tests/kit

RBC-FluoGene® RHD Zygosity Q: RHD Zygote DD vs. Dd

- Quantification of *RHD* exons 1 and 10 for determination of *RHD* zygosity DD vs. Dd by real-time PCR
- Calculation of *RHD* zygosity is performed by the $\Delta\Delta C_t$ -value

Article no.: 001 094 100Q, 2 mixes/test, 100 tests/kit

RBC-FluoGene® fetal RHD Q: cffDNA detection from maternal plasma

- Real-time detection of *RHD* exon 5 and 7 plus internal control in one well
- Includes positive control

Article no.: 001 096 030Q, 1 mix/test (triplet approach), 32 tests/kit

- Additionally available: **RBC-FluoGene® fetal control Q**. Supports validation of the DNA extraction method as well as the validation of *RHD* negative results.
- Validated real-time PCR devices: FluoQube, QuantStudio 5 / 6 Pro / 7 Pro and LightCycler 480 II
- Validated extraction methods: QiaSymphony (DSP Circulating Kit), MagnaPure 96 (Viral NA Large Volume + MagNA Pure cfNA Buffer Set), Maxwell (Maxwell® RSC ccfDNA Plasma Kit), Chemagic cfdNA 5k (Perkin Elmer)

Article no.: 001 097 030Q, 32 tests/kit



v1.3 - 09.24



For USA and Canada:
For Research Use Only.
Not for use in diagnostic procedures.

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