ENGLISH

Anyplex™ Ⅱ

Thrombosis SNP Panel Assay

Detection of 6 SNPs in Factor Ⅱ, Factor Ⅴ and MTHFR by Real-time PCR

- Factor Ⅱ : G20210A
- Factor Ⅴ : R506Q, H1299R, Y1702C
- MTHFR : C677T, A1298C

CE-IVD Marked

Superior

HIGH SENSITIVITY & SPECIFICITY

Multiplex real-time PCR with high sensitivity and specificity by utilization of DPO™ and TOCE™ technologies

Seegene

Anyplex™ II

Thrombosis SNP Panel Assay

Thrombosis is the formation of a blood clots inside a blood vessel, obstructing the blood flow of the cardiovascular system. Several thrombosis associated single nucleotide polymorphisms (SNPs) have been identified and reported to significantly increase the risk of venous thrombosis. One SNP (G20210A) in the Factor II gene has been found to be associated with increased prothrombin levels and an increase in the risk for venous thrombosis in heterozygotes. Three SNPs (R506Q, H1299R and Y1702C) in the factor V gene are the most important genetic risk factors for inherited thrombophilia. Two SNPs (C677T and A1298C) in the MTHFR gene cause reduction of MTHFR enzyme activity and heterozygosity for both C677T and A1298C is considered as a risk factor for venous thrombosis. Anyplex™ II Thrombosis SNP Panel Assay is designed to detect and discriminate six SNPs (1 in Factor II, 3 in Factor V and 2 in MTHFR) in a single tube using the mTOCE™ technology.

Analytes

- **Factor II : G20210A**
- **Factor V : R506Q**
  H1299R
  Y1702C
- **MTHFR : C677T**
  A1298C

Features

a. Six SNPs in Factor II, Factor V and MTHFR genes can be detected in a single tube
b. Multiple SNPs are detected and differentiated in a single channel
c. Performance is not affected by multiple SNPs being present
d. Broad range of DNA template concentration : 25 ~ 1,000 ng/rxn
e. Utilization of the UDG system to prevent carry-over contamination
f. Amenable to automated sample handling and assay systems
g. Convenient data interpretation by Seegene Viewer

Compatible Instrumentation (CE-IVD Marked)

- **Automated Extraction & PCR setup**
  Seegene NIMBUS IVD
  Seegene STARlet IVD
- **Real-time PCR**
  CFX96™ Dx

Specimen

- **Whole Blood**

Workflow - Accurate & convenient by automated platform

Automation via validated NIMBUS IVD & STARlet IVD improves easy workflow and decreases hands-on time.

Result

Seegene Viewer

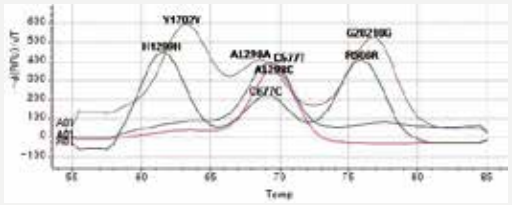
Quick and easy data analysis & interpretation

a. Interface specialized for multiple-pathogen testing
b. Interlocked with LIS
c. Patient information input via barcode scanning system
d. Printable in various formats
e. Downloadable results in a CSV file
f. Convenient view for quantitative analysis result

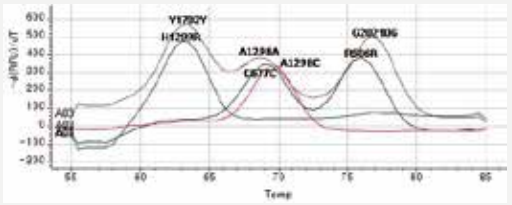
Example Data

Application in clinical samples

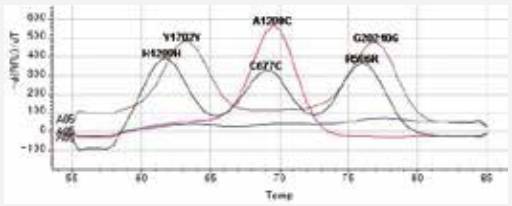
Example 1



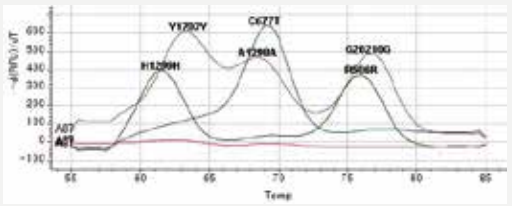
Example 2



Example 3



Example 4



Result Interpretation

	Auto Interpretation							FAM				HEX				Cal Red 610				Quasar 670			
	C(t)	H1299R	C677T	R506Q	Y1702C	A1298C	G20210A	C(t)	H1299R	C677T	R506Q	C(t)	H1299H	C677C	R506R	C(t)	Y1702C	A1298C	G20210A	C(t)	Y1702Y	A1298A	G20210G
Example 1	Valid	Wt	Het	Wt	Wt	Het	Wt	28.22	-	+	-	23.91	+	+	+	29.57	-	+	-	25.95	+	+	+
Example 2	Valid	Homo	Wt	Wt	Wt	Het	Wt	29.71	+	-	-	25.78	-	+	+	30.25	-	+	-	26.31	+	+	+
Example 3	Valid	Wt	Wt	Wt	Wt	Homo	Wt	N/A	-	-	-	25.70	+	+	+	28.77	-	+	-	28.88	+	-	+
Example 4	Valid	Wt	Homo	Wt	Wt	Wt	Wt	27.10	-	+	-	25.75	+	-	+	N/A	-	-	-	26.41	+	+	+

* Wt : Wild Type Het : Heterozygote Type Homo : Homozygote Type

References

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3. Castoldi E, Lunghi B, et al. A missense mutation (Y1702C) in the coagulation factor V gene is a frequent cause of factor V deficiency in the Italian population. Haematologia. (2001). 86(6):629-633.
4. Varga EA and Moll S. Prothrombin 20210 Mutation (Factor II Mutation). Circulation. (2004). 110:e15-e18.
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6. Van der Put NM, Gabreëls F, et al. A Second Common Mutation in the Methylenetetrahydrofolate Reductase Gene: An Additional Risk Factor for Neural-Tube Defects? The American Journal of Human Genetics. (1998). 62(5):1044-1051.
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8. Hanson NQ, Aras O, Yang F, Tsai MY. C677T and A1298C polymorphisms of the methylenetetrahydrofolate reductase gene: incidence and effect of combined genotypes on plasma fasting and post-methionine load homocysteine in vascular disease. Clinical Chemistry. (2001). 47(4):661-666.
9. Castoldi E, Simioni P, et al. Combinations of 4 mutations (FV R506Q, FV H1299R, FV Y1702C, PT 20210G/A) affecting the prothrombinase complex in a thrombophilic family. Blood. (2000). 96(4):1443-1448.

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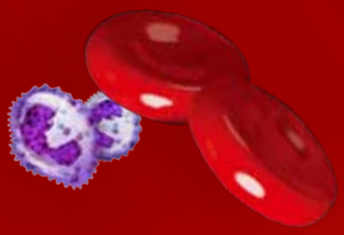

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Ordering Information

Not Available for Sale in the United States

Product	Package Volume	Cat. No.
Anyplex™ Ⅱ Thrombosis SNP Panel Assay	50 rxns	TS7600Y
	100 rxns	TS7600X
Instrument	**Type**	**Cat. No.**
CFX96™ Dx	Real-time PCR _ Optical Reaction Module	1845097-IVD
	Real-time PCR _ Thermal Cycler	1841000-IVD
Seegene NIMBUS IVD	Automated extraction & PCR Setup	65415-03
Seegene STARlet IVD	Automated extraction & PCR Setup	67930-03
STARMag 48 x 8 Tissue Cartridge Kit	Nucleic acids extraction reagent	744300.4.TC384
STARMag 96 X 4 Universal Cartridge kit	Nucleic acids extraction reagent	744800.4.UC384
STARMag 96 Tissue	Nucleic acids extraction reagent	744300.4.205875

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