

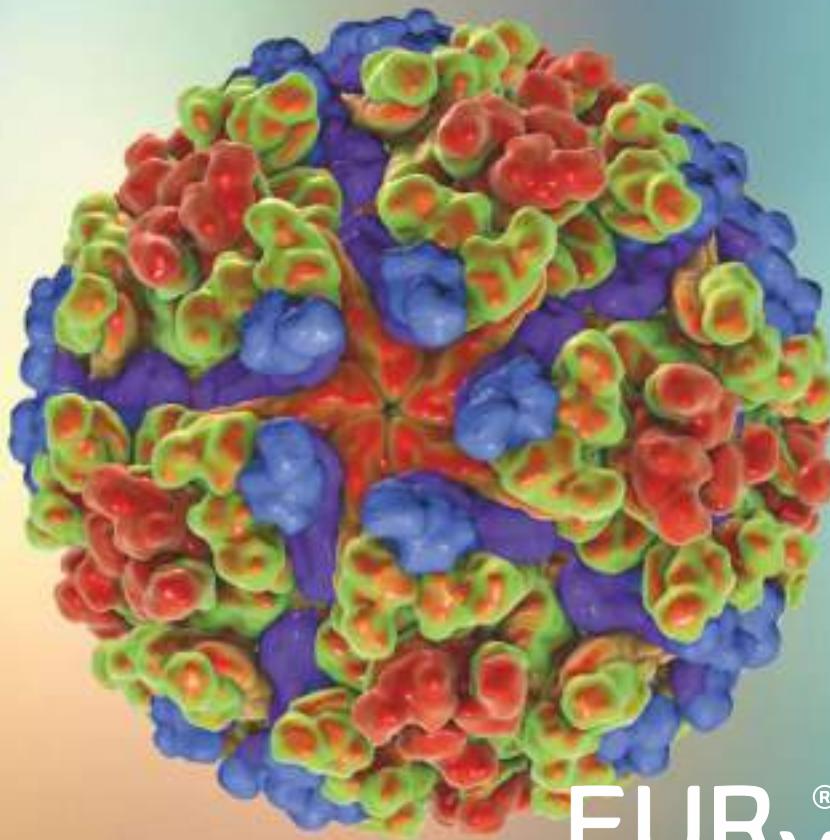


Catálogo  
**Biología  
Molecular**  
**2021**





# smART series



EUR<sub>X</sub><sup>®</sup>

MOLECULAR  
BIOLOGY  
PRODUCTS

## smART Reverse Transcriptase

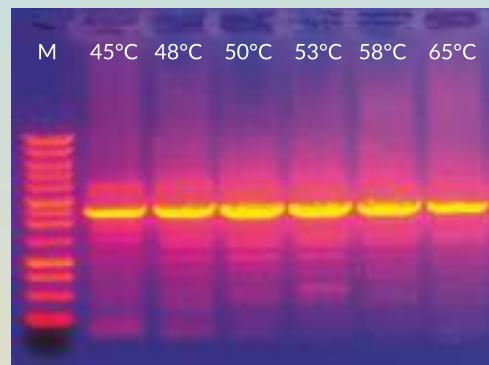
E1376-01	10 000 u
E1376-02	4x 10 000 u

smART Reverse Transcriptase is an engineered viral reverse transcriptase with reduced RNase H activity, increased thermostability and processivity. smART Reverse Transcriptase provides a very robust and highly specific cDNA synthesis from a wide variety of RNA samples in a wide range of temperatures (50-65°C).

## smART First Strand cDNA Synthesis kit

E0804-01	2 000 u
E0804-02	10 000 u
E0804-03	4x 10 000 u

smART First Strand cDNA Synthesis Kit is designed for convenient cDNA synthesis. Product is based on smART Reverse Transcriptase engineered to provide the highest performance. Kit provides a very reliable and consistent cDNA synthesis with any RNA samples in a wide range of temperatures (50-65°C). cDNA can be used directly in PCR and qPCR reactions with a variety of EURx thermostable DNA polymerases and master mixes.



**Fig.1** RT-PCR targeting *S.scrofa* Glycogen Phosphorylase in a wide range of temperatures. 0.1 µg of total RNA from *S.scrofa* liver isolated with GeneMATRIX UNIVERSAL RNA Purification Kit (E3598) was used to synthesize cDNA using oligo dT<sub>(20)</sub> and smART Reverse Transcriptase (20 µl reaction volume). 2 µl of cDNA reaction was used in a second strand synthesis with OptiTaq DNA Polymerase (E2600). M - Perfect Plus 1 kb DNA Ladder (E3131).

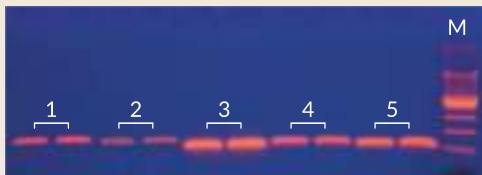
## smART RT-PCR kit

E0805-01	25 reactions
E0805-02	100 reactions

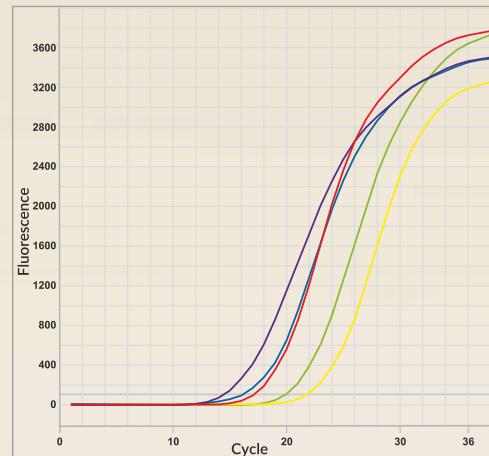
## smART RT-qPCR kit

E0806-01	25 reactions
E0806-02	100 reactions

smART RT-PCR Kit and smART RT-qPCR Kit are complete systems for first and second strand synthesis in a two-step reaction. Kits provide all necessary components optimized for best performance in standard PCR and qPCR.



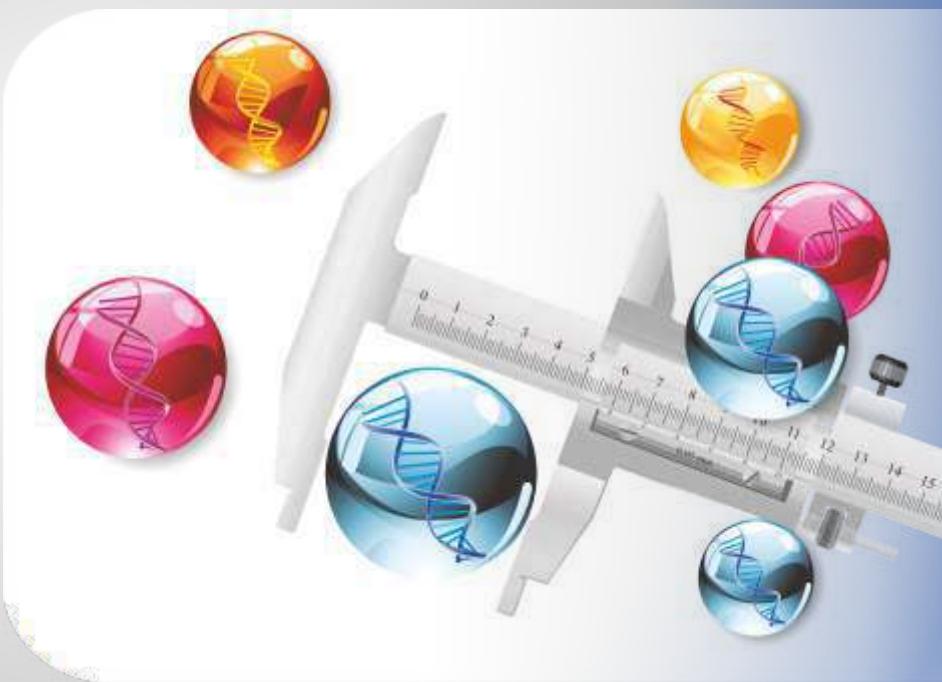
**Fig.2** RT-PCR reaction targeting five different genes. 8 ng of total RNA isolated from Human blood with GeneMATRIX HUMAN BLOOD RNA Purification Kit (E3596) was used to synthesize total cDNA with oligo dT<sub>(20)</sub> and smART RT-PCR kit. 2 µl of cDNA was used in PCR reaction (25 µl reaction volume). 1. Arginase I, 149 bp; 2. Beta-tubulin, 131 bp; 3. CD48 receptor, 103 bp; 4. Beta-actin, 112 bp; 5. GAPDH, 110 bp; M - Perfect 100 bp DNA Ladder (E3134).



**Fig.3** RT-qPCR reaction targeting five different genes. 8 ng of total RNA isolated from Human blood with GeneMATRIX HUMAN BLOOD RNA Purification Kit (E3596) was used to synthesize total cDNA with oligo dT<sub>(20)</sub> and smART RT-qPCR kit. 2 µl of cDNA was used in qPCR reaction (25 µl reaction volume). Yellow line - Arginase I, 149 bp, ct=21,8; green line - Beta-tubulin, 131 bp, ct=19,6; red line - CD48 receptor, 103 bp, ct=17,3; violet line - Beta-actin, 112 bp, ct=14,6; blue line - GAPDH, 110 bp, ct=16,2.

experiments with quality

# Perfect™ Ladders

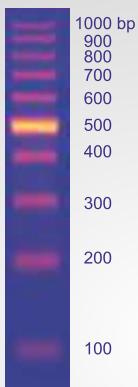


***“to measure  
is to know”***

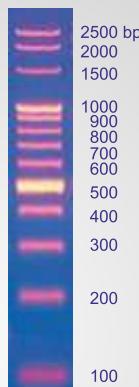
**EURx®**  
Molecular Biology Products

 **akralab**  
one point, all solutions.

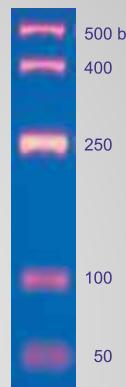
**100-1000 bp DNA Ladder E3141**



**100 bp DNA Ladder E3134**



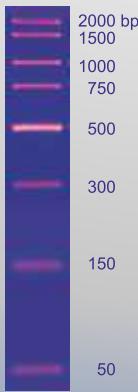
**50-500 bp DNA Ladder E3145**



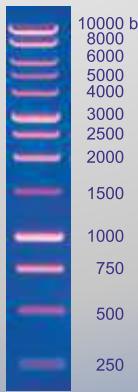
**MW Quantitative Ladder E3161**



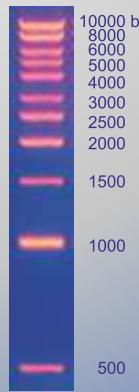
**2 kb DNA Ladder E3140**



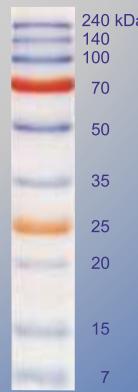
**Plus 1 kb DNA Ladder E3131**



**1 kb DNA Ladder E3130**



**Color Protein Ladder E3215**



**Perfect™ Tricolor Protein Ladder E3210**



**EURx®**  
Molecular Biology Products

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# FAST-CYCLING PCR

Save time with EURx fast-cycling polymerases!

Extra equipment not needed!

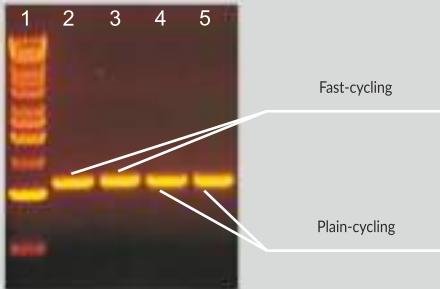


experiments with quality

*Fast polymerases shorten PCR cycling time app. 40-50% without affecting the yield, performance and all parameters of PCR and real-time PCR.*

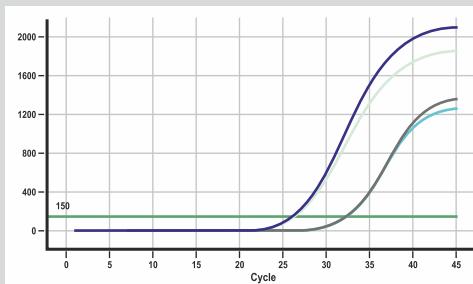
*EURx fast-cycling PCR is achieved by:*

- special composition of a polymerase buffer (NXT Taq PCR Kit, Fast SG qPCR Master Mix, Fast Probe qPCR Master Mix). The polymerase is based on "hot start" Perpetual Taq DNA Polymerase.
- protein genetic engineering (Hybrid DNA Polymerase). Hybrid DNA Polymerase exhibits the 3'-5' proofreading activity and is based on Pyrococcus sp. DNA polymerase.

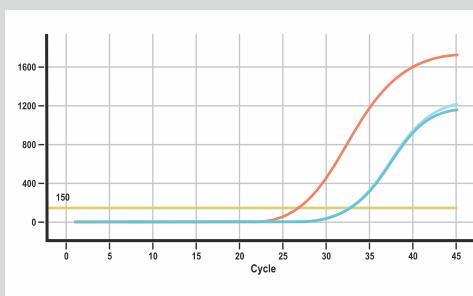


Lane 1: EURx Perfect 1kb DNA Ladder (E3130).

Lanes 2,3: PCR amplification reactions using NXT Taq PCR Kit.  
Lanes 4,5: PCR amplification reactions using Perpetual Taq PCR Master Mix (2x).



#### Fast Probe qPCR



#### Probe qPCR

## Comparison of NXT Taq PCR Kit (E2530) and Perpetual Taq Master Mix(2x)(E2740).

An amplicon of the human CCR5 gene (1.1 kb) was amplified with NXT Taq PCR Kit and Perpetual Taq Master Mix (2x) using fast-cycling and plain-cycling PCR respectively:

#### Fast-cycling:

95°C 5 min  
96°C 5 s  
60°C 5 s  
68°C 35 s  
31 cycles  
72°C 1 min

\*Total time: 57 min

#### Plain-cycling:

95°C 5 min  
94°C 20 s  
60°C 30 s  
72°C 1 min 10 s  
31 cycles  
72°C 7 min

\*Total time: 1h 51 min

## EURx FAST-CYCLING PCR PRODUCTS:

#### NXT Taq PCR Kit

E2530-01 100 reactions  
E2530-02 200 reactions  
E2530-03 500 reactions

Ready-to-use solution containing hot start NXT Taq DNA Polymerase, reaction buffer, MgCl<sub>2</sub> and dNTPs. NXT Taq PCR Kit is designed for fast-cycling PCR on any thermal cycler.

#### Fast SG qPCR Master Mix(2x)

E0411-01 100 reactions  
E0411-02 200 reactions  
E0411-03 1000 reactions

For fast-cycling quantitative real-time PCR and two-step real-time RT-PCR. Can be used on most real-time PCR cyclers.

#### Fast SG qPCR Master Mix(2x), plus ROX Solution

E0412-01 100 reactions  
E0412-02 200 reactions  
E0412-03 1000 reactions

For fast-cycling quantitative real-time PCR and two-step real-time RT-PCR. Can be used on most real-time PCR cyclers. Contains ROX dye (separate vial).

#### Fast Probe qPCR Master Mix(2x)

E0422-01 100 reactions  
E0422-02 200 reactions  
E0422-03 1000 reactions

For fast-cycling quantitative real-time PCR and two-step real-time RT-PCR using sequence specific probes.

#### Fast Probe qPCR Master Mix(2x), plus ROX Solution

E0423-01 100 reactions  
E0423-02 200 reactions  
E0423-03 1000 reactions

For fast-cycling quantitative real-time PCR and two-step real-time RT-PCR using sequence specific probes. Contains ROX dye (separate vial).

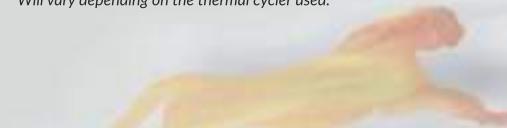
#### Hybrid DNA Polymerase

E2950-01 100 u EK2950-01 100 u  
E2950-02 200 u EK2950-02 200 u

Extremely thermostable DNA polymerase, enabling efficient high fidelity PCR of genomic targets up to 12 kb and episomal targets up to 20 kb. Hybrid DNA Polymerase kit (EK) contains dNTPs.

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fax 58 341 74 23  
[www.eurx.com.pl](http://www.eurx.com.pl)

\*Will vary depending on the thermal cycler used.



# NUCLEIC ACIDS ISOLATION GUIDE

SELECTION OF THE KITS DEPENDING ON THE TYPE OF ISOLATED MATERIAL															DNA/RNA								
ISOLATION OF DNA															PREPS								
AVAILABLE NUMBER OF ISOLATIONS (PREPS)																							
		50	100	150	250	500	1500	2500	5000	15000	25000	50000	150000	250000	25	100							
DNA	GENOMIC	BACTERIA	●		●										●	●	●						
		YEAST	●		●										●	●	●						
		CELL CULTURE				●									●	●	●						
		PLANT					●								●	●	●						
		FUNGI						●							●								
		PLANT RICH IN POLYSACCHARIDES							●														
		BLOOD								●													
		SOIL									●												
		STOOL									●												
		SEDIMENT										●											
		SWAB											●										
		ANIMAL TISSUES											●				●						
		FFPE TISSUE SECTIONS												●									
		RODENT TAILS												●									
		HAIR												●									
		INSECTS												●									
		URINE												●									
		BONE				●																	
		BIOLOGICAL TRACES				●																	
		FOOD					●																
	PLASMID	BACTERIA						●															
		YEAST						●															
ISOLATION FROM AGAROSE GELS			●		●																		
PURIFICATION OF PCR PRODUCTS / DNA AFTER ENZYMIC REACTIONS		●		●		●																	
BUFFERS FOR DNA/RNA PURIFICATION SYSTEMS															PREPS								
															25	100	25	100	25	100	25	100	
Catalog																							
Package																							
RL buffer																							
Solely for systems: E3594, E3598, E3599 and E3596. Basic binding solution for lysis and sample homogenization.																							
E0310-01																							
E0310-02																							
LG buffer																							
Solely for E3598 system. Solution responsible for sample lysis in E3598 kit.																							
E0312-01																							
E0312-02																							
DRP buffer																							
Solely for E3597 system. Binding solution for lysis and sample homogenization in E3597 kit.																							
E0314-01																							
E0314-02																							
Lyse All buffer																							
Solely for systems: E3597 and E3599. Solution responsible for sample lysis in E3597 and E3599 kits.																							
E0316-01																							
E0316-02																							
Wash RBW																							
Solely for systems: E3594, E3598, E3597 and E3596. Basic solution for elution of impurities from binding columns.																							
E0318-01																							
E0318-02																							
Lyse P buffer																							
Solely for E3595 system. Basic solution for lysis and homogenization of plant tissues in E3595 kit.																							
E0320-01																							
E0320-02																							
Sol P buffer																							
Solely for E3595 system. Binding solution for plant and fungi genomic DNA in E3595 kit.																							
E0322-01																							
E0322-02																							
Lyse CT buffer																							
Solely for E3595 system. Additional lysing solution for plant tissues rich in polysaccharides.																							
E0324-01																							
E0324-02																							
Lyse RBC buffer																							
Solely for E3596 system. Additional lysing solution for red blood cells.																							
COLUMNS FOR DNA/RNA PURIFICATION SYSTEMS																							
Catalog																							
Package																							
Columns for DNA Purification																							
Columns for selected DNA Purification Systems.																							
E0330-01																							
E0330-02																							
Columns for RNA Purification																							
Columns set (binding and homogenization columns) for selected RNA Purification Systems.																							
E0340-01																							

EUR<sub>X</sub><sup>F</sup>

## MOLECULAR BIOLOGY PRODUCTS

#### **SELECTION OF THE KITS DEPENDING ON THE TYPE OF ISOLATED MATERIAL**

All kits contain buffers WASH in ready to use form

1. Kit contains phenol-based reagent for isolation DNA/RNA.

## **SELECTION OF THE KITS DEPENDING ON THE TYPE OF ISOLATED MATERIAL**

		ISOLATION OF RNA					
		E2399	E2398	E2396	E2394	UNIVERSAL RNA/miRNA	FFPE RNA Purification Kit
		RNA EXTRACOL® 2	UNIVERSAL BLOOD RNA	HUMAN BLOOD RNA	UNIVERSAL BLOOD RNA	UNIVERSAL RNA/miRNA	FFPE RNA Purification Kit
		25 100	25	25	25 100	25 100	25 100
RNA	TOTAL RNA LONGER THAN 200 BASES	PREPS					
		ANIMAL TISSUE				●	●
		PLANT TISSUE				●	●
		BACTERIA				●	
		YEAST				●	
		CELL CULTURE				●	●
		HUMAN BLOOD	FRESH	●	●	●	●
			FROZEN <sup>1</sup>		●		
		ANIMAL BLOOD	FRESH	●	●		
			FROZEN <sup>1</sup>		●		
RNA	miRNA OR TOTAL RNA	ANIMAL TISSUE					
		FFPE TISSUE SECTIONS					
		PLANT TISSUE					
		CELL CULTURE					
		BACTERIA					
		YEAST					
		BLOOD/LEUKOCYTES					
		PURIFICATION OF RNA AFTER ENZYMBATIC REACTIONS					
		ON-COLUMN DNase DIGESTION					

All kits contain buffers WASH in ready to use form

1. Frozen with the addition of Lyse Blood buffer (included in kit).
2. Phenol-based reagent for isolation RNA.



**SELECTION OF THE KITS  
DEPENDING ON THE TYPE  
OF ISOLATED MATERIAL**

		ISOLATION OF DNA																	
		AVAILABLE NUMBER OF ISOLATION																	
		50	100	50	150	25	100	50	150	25	100	50	150	25	100	50	150	50	150
DNA	GENOMIC	BACTERIA		●		●													●
		YEAST		●		●												●	●
		CELL CULTURE								●									
		PLANT										●							
		FUNGI										●							
		PLANT RICH IN POLYSACCHARIDES <sup>1</sup>										●							
		BLOOD									●								
		SOIL																	
		STOOL																	
		SWAB																	
		ANIMAL TISSUES																●	●
		FFPE TISSUE SECTIONS																●	●
		RODENT TAILS																●	●
		HAIR																●	●
		INSECTS																●	●
		URINE																●	●
		BONE							●										
		BIOLOGICAL TRACES					●												
		FOOD								●									
	PLASMID	BACTERIA							●				●						
		YEAST							●										
	ISOLATION FROM AGAROSE GELS								●			●							
	PURIFICATION OF PCR PRODUCTS / DNA AFTER ENZYMBATIC REACTIONS		●						●			●					●		

All kits contain buffers WASH in ready to use form

1. Frozen with the addition of Lyse Blood buffer (included in kit).

2. Kit for creation of emulsions and subsequent DNA purification.



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