



## Reagents for genomics

Since the postulation of the Watson-Crick double helix model of DNA, the world of nucleic acids and their importance in every living being has not lost in fascination. This field developed very fast during the last 70 years. With milestones of PCR and sequencing, the work with DNA and RNA has become one of the most important fields for scientists in life sciences.

PanReac AppliChem helps you with products for a clean working space in nucleic acids laboratories. We provide the most common enzymes used, help with buffers for your work and offer a broad spectrum for assays and analytical tools.

PanReac AppliChem offers the standard enzymes for your work with nucleic acids in high quality at a magnificent quality price ratio. These enzymes are used in protocols for purification of DNA, RNA and proteins.



### Enzymes

Product code	Product name	CAS
A3778	DNase I	9003-98-9
A3711	Lysozyme BioChemica	9001-63-2
A4972	Lysozyme for molecular biology	9001-63-2
A3830	Proteinase K, lyophilized	39450-01-6
A4392	Proteinase K solution 20 mg/ml	
A9785	Proteinase K solution 50 mg/ml	
A7932	Proteinase K, recombinant	39450-01-6
A2760	RNase A	9001-99-4
A3832	RNase A (DNase-free)	9001-99-4
A5231	SuperHot Taq DNA Polymerase	
A5434	Taq DNA Polymerase DNA-free	

For further information please visit our website: <https://www.itwreagents.com/germany/en/enzymes>

### Nucleic acid decontamination

To work in genomics means to control, dominate and keep your samples clean. You need to be sure to have only the sequence you want to have in your work environment and not the one of your colleague. Also in the forensic world this plays a crucial point.

We from PanReac AppliChem offer the DNA/RNA- ExitusPlus™ technology: easy to use, very effective, non-toxic to humans, and not harmful to equipment.

#### Key features

- Catalytic and cooperative effects of the components cause a very rapid non-enzymatic, nonsequence-specific degradation of DNA and RNA molecules.
- All components of DNA/RNA-ExitusPlus™ are readily biodegradable and not harmful or toxic for humans.
- No aggressive mineral acids or alkaline substances are used. Equipment and materials are not damaged or corroded even after prolonged incubation times.
- No toxic fumes.
- Elevated temperatures above approx. 50°C speed up the reaction and the activity.

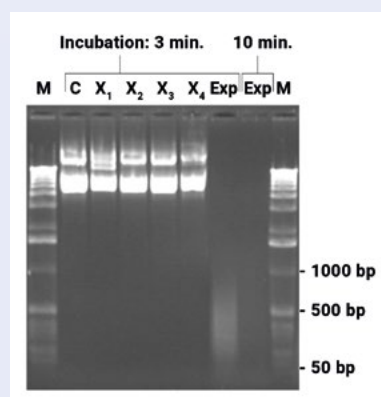


Figure 1

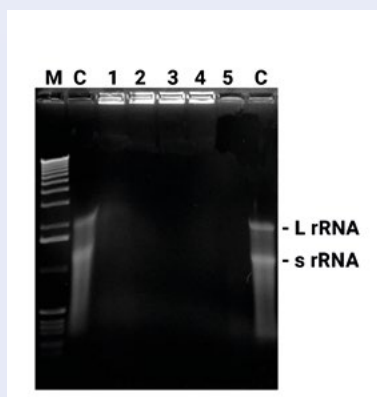


Figure 2

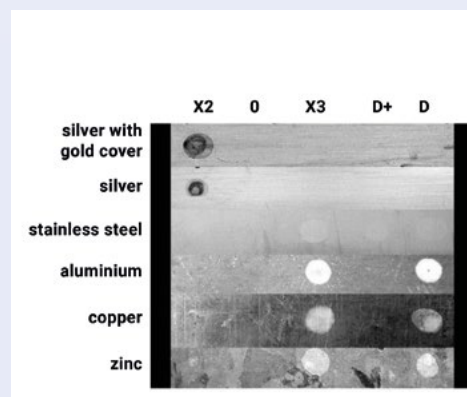


Figure 3

You can see that all the DNA is gone after 10 min of DNA/RNA-ExitusPlus™ (figure 1); also RNA is gone even after 0.5 min (figure 2); and also compared to other common Decontamination solutions DNA/RNA-ExitusPlus™ does not attack your work material (figure 3).

Product code	Product name
A7089	DNA/RNA-ExitusPlus™
A7409	DNA/RNA-ExitusPlus™ IF
A7600	Autoclave-ExitusPlus™
A9411	ExitusPlus™ Activity Test
A7153	RNase-ExitusPlus™

For further information about the use of DNA/RNA-ExitusPlus™ watch our simple explaining video at <https://youtu.be/RM10H-MFx9Q>.



## Buffers for nucleic acids

Buffers are the one of the most commonly used substance class in biological science. We from PanReac AppliChem offer you a wide selection of buffer compounds and finished buffers where you only have to add the solvent.

This here is only a selection of the most used buffers. You can find more visiting our website:

<https://www.itwreagents.com/germany/en/life-science-buffers>

Product code	Product name	pH (20°C; H <sub>2</sub> O)	Composition
A4150	CTAB - Lysis buffer BioChemica	8.0 ± 0.1	CTAB ..... 20.00 g/L (2% w/v) EDTA·Na <sub>2</sub> ·2H <sub>2</sub> O ..... 7.44 g/L (20 mM) Tris ultrapure ..... 12.11 g/L (100 mM) Sodium chloride ..... 81.82 g/L (1.4 M)
A0703	Guanidine Thiocyanate solution (6 M in 0.1 M Tris; pH 7.5) for molecular biology	7.5 ± 0.2 (25°C)	GuaSCN ..... 708.96 g/L (6 M) Tris ..... 12.11 g/L (0.1 M)
A1691	TAE buffer (50X)	8.5 ± 0.2	EDTA·Na <sub>2</sub> ·2H <sub>2</sub> O ..... 18.61 g/L (0.05 M) Acetic acid glacial ..... 60.05 g/L (1 M) Tris ..... 242.28 g/L (2 M)
A0972	TBE buffer (10X)	8.3 ± 0.2	Boric acid ..... 55.03 g/L (0.89 M) EDTA·Na <sub>2</sub> ·2H <sub>2</sub> O ..... 7.44 g/L (0.02 M) Tris ..... 107.81 g/L (0.89 M)
A0386	TE buffer (1X) pH 8.0 for molecular biology	8.0 ± 0.1	EDTA·Na <sub>2</sub> ·2H <sub>2</sub> O ..... 0.37 g/L (1 mM) Tris ..... 1.21 g/L (10 mM)
A1086	Tris ultrapure	10.5 - 11.5 (1M)	
A3452	Tris Hydrochloride for molecular biology	3.5 - 5.0 (0.5 M, 25°C)	



## Analytics & assays - Isolation of nucleic acids

PanReac AppliChem offers you a selection of products for isolation and analysis of nucleic acids.

### TRIidty G™, code A4051

Ready-to-use solution for simultaneous isolation of RNA, DNA and proteins.

- Monophasic reagent (contains phenol and guanidinium thiocyanate)
- Suited for small and large samples.
- For samples of human, animal, plant and bacterial origin.
- Isolation of intact total RNA from tissue and cells, sequential precipitation of DNA and proteins.
- Improved version of the 'single-step' RNA-isolation method developed by Chomczynski & Sacchi.
- Isolation of large and small RNA-species (0.1 - 15 kb) with high purity.



*Purity and integrity of the DNA will affect the results of all subsequent applications, so highest quality of DNA is desirable for diagnosis and research.*

### Further frequently used products for isolation and analysis:

Product code	Product name
A8963	Agarose Basic
A2114	Agarose low EEO (Agarose Standard)
A2116	Agarose medium EEO
A1091	Agarose MP
A1152	Ethidium Bromide solution 1% BioChemica
A2273	Ethidium Bromide solution 0.07% "dropper-bottle"
A9555	DNA-Dye NonTox

IP-043EN

