TRANSGEN

TRANSGEN BIOTECH

Uracil-DNA Glycosylase (Low Temperature)

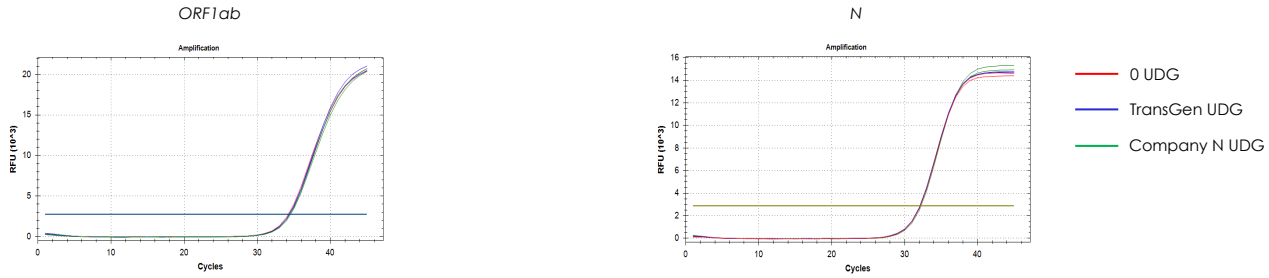
TransGen, To Achieve Life Science Dreams

Product Features

- Efficiently remove uracil (dU) bases from single-stranded or double-stranded DNA; The aerosol contamination caused by the dU containing PCR products was removed to improve the specificity of the reaction.
- It is sensitive to temperature and can be inactivated irreversibly after incubation at 50℃ for 10 minutes, which avoids the degradation of new dU amplification products by residual activity that may exist after conventional UDG inactivation at room temperature.
- It is suitable for PCR/qPCR, RT-PCR/qRT-PCR, LAMP/RT-LAMP and other reactions.
- Recombinant protein from Antarctic psychrophilic Marine bacteria expressed and purified by *Ecoli*.

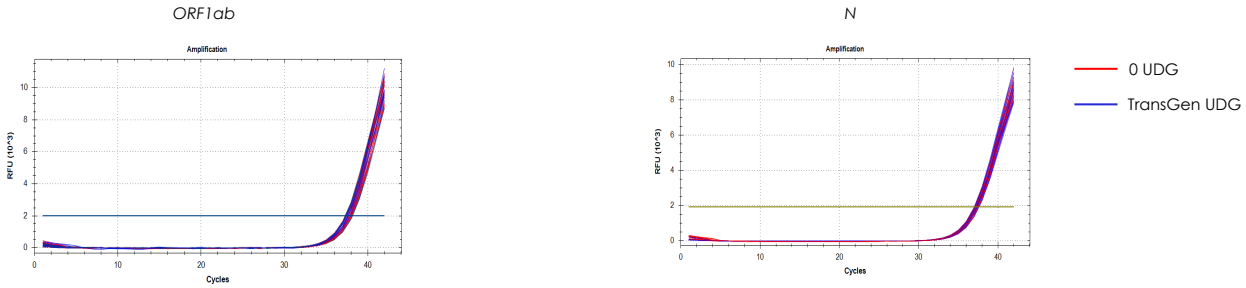
Applied to qRT-PCR

It has no effect on the reverse transcription process.



Three systems, 0 UDG, TransGen UDG and Compamy N UDG, were used for qRT-PCR with the standard samples of SARS-CoV-2 as samples. The results showed that under the condition of reverse transcription at 50℃ for 5 minutes , The introduction of dUTP/UDG system does not affect the normal reverse transcription process.

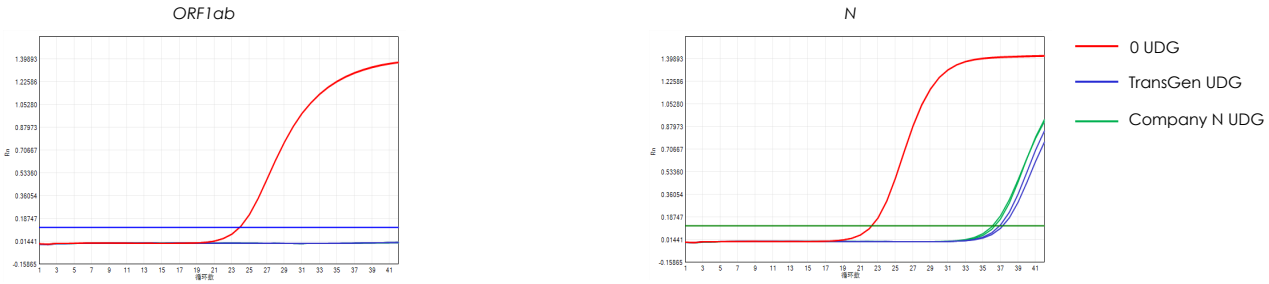
No Effect on the Amplification Efficiency



qRT-PCR was performed using 0 UDG and TransGen UDG systems using 200 copies/ml of SARS-CoV-2 samples. The results showed that the detection rates were 100%(20/20), and the amplification efficiency was not affected by the introduction of dUTP/UDG system.

Strong clearing capability for templates containing U

SARS-CoV-2

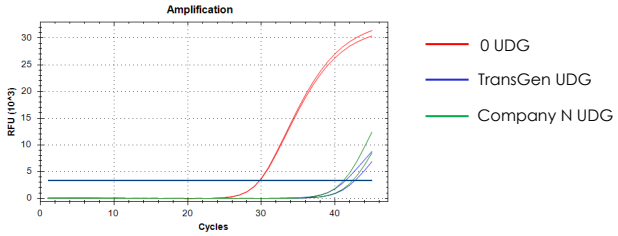


FAM channel	Cq	Cq	Mean	ΔCq
0 UDG system	23.86	23.88	23.87	
TransGen UDG system	-	-	-	-
Company N UDG system	-	-	-	-

VIC channel	Cq	Cq	Mean	ΔCq
0 UDG system	22.27	22.27	22.27	
TransGen UDG system	37.23	36.88	37.06	14.79
Company N UDG system	36.33	36.09	36.21	13.94

The U-PCR products amplified after the inversion of the SARS-CoV-2 were used as templates, and 0 UDG, TransGen UDG, and Compamy N UDG systems were used for amplification. The results showed that TransGen product has a good ability to remove residual templates.

Porcine Reproductive and Respiratory Disorder Syndrome Virus



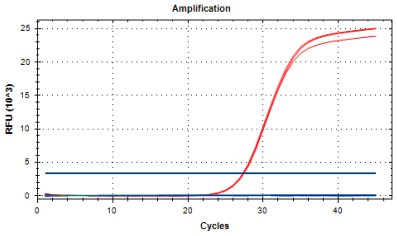
FAM channel	Cq	Cq	Mean	ΔCq
0 UDG system	29.76	29.82	29.79	
TransGen UDG system	42.72	41.43	42.08	12.29
Company N UDG system	41.17	42.40	41.79	12.00

The amplified U-PCR products of porcine reproductive and respiratory syndrome virus after inversion were used as templates, and 0 UDG, TransGen UDG and Compamy N UDG systems were used for amplification. The results showed that TransGen product has a good ability to remove residual templates.

Applied to qPCR

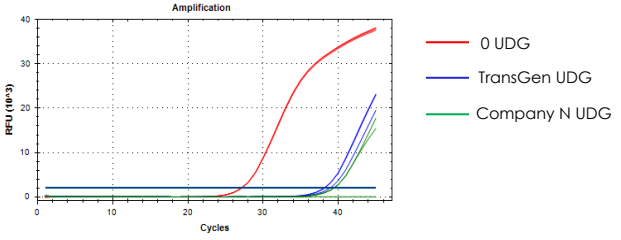
African Swine Fever Virus

N



FAM channel	Cq	Cq	Cq	Mean	ΔCq
0 UDG system	27.24	27.42	27.32	27.33	
TransGen UDG system	-	-	-	-	-
Company N UDG system	-	-	-	-	-

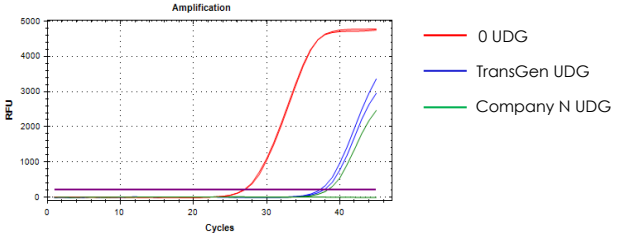
z3



FAM channel	Cq	Cq	Cq	Mean	ΔCq
0 UDG system	27.19	27.2	27.23	27.21	
TransGen UDG system	45.00	39.45	39.51	41.32	14.11
Company N UDG system	38.24	38.23	39.02	38.50	11.29

The amplified U-PCR products of African swine fever virus were used as templates, and the three systems of 0 UDG, TransGen UDG, and Compamy N UDG were used for amplification. The results showed that the TransGen product has a good ability to remove residual templates.

The Pseudo-Rabies Virus



FAM channel	Cq	Cq	Mean	ΔCq
0 UDG system	27.02	26.86	26.94	
TransGen UDG system	38.34	45.00	41.67	14.73
Company N UDG system	37.24	37.82	37.53	10.59

The U-PCR products amplified by pseudo-rabies virus were used as templates, and the three systems of 0 UDG, TransGen UDG and Compamy N UDG were used for amplification. The results show that the TransGen product has a good ability to remove residual templates.

Product Name	Cat#	Specification
Uracil-DNA Glycosylase (Heat-labile)	LU201-01	100 μL
	LU201-02	500 μL

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