



ELISA Kits

Extraordinary Detection Tools
for Quality Control
in Biopharmaceuticals

Viral Titration ELISA Kits

- Lentivirus Titer p24 ELISA Kit
- Lentivirus Titer p24 ELISA Kit Pro
- MuLV Titer p30 ELISA Kit
- AAVX Titer Capsid ELISA Kit — Multiple Serotypes

Lentivirus Titer p24 ELISA Kit

Cat No. L00938

Key Features



Short Assay Time

The complete titration can be finished within 2.5 hours



Wide Linear Range

31.25 - 2000 pg/mL

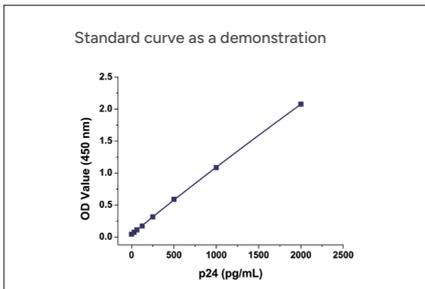


High Assay Precision

Intra-assay CV \leq 10% and Inter-assay CV \leq 10%

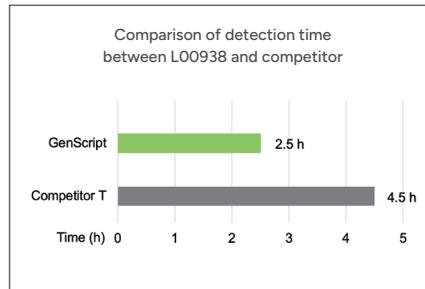
Validation Data

Standard Curve



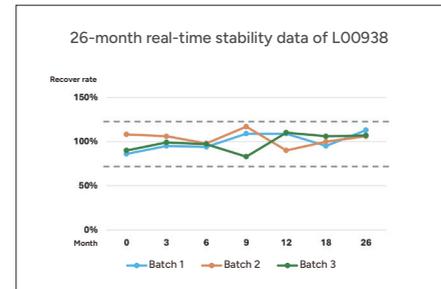
Standard curve

Short Assay Time



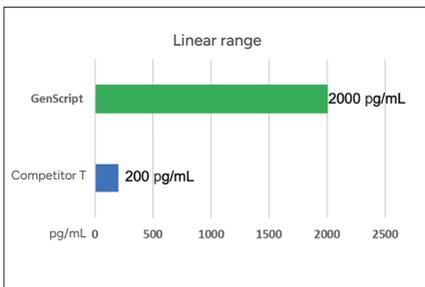
The detection time of L00938 is shorter than that of competitor T

High Stability



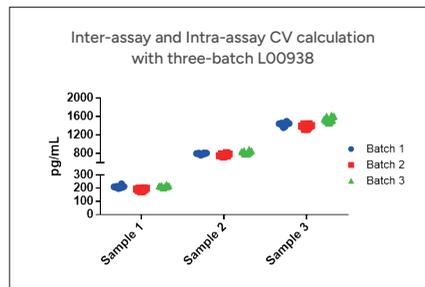
Ultra high stability

Wide Linear Range



Ultra wide linear range

High Assay Precision



Intra-assay CV \leq 10% and Inter-assay CV \leq 10%

Lentivirus Titer p24 ELISA Kit Pro

Cat No. L00974

Key Features



High Accuracy

Remove free p24 and only detect p24 protein on lentivirus capsid



Short Assay Time

The complete titration can be finished within 3 hours



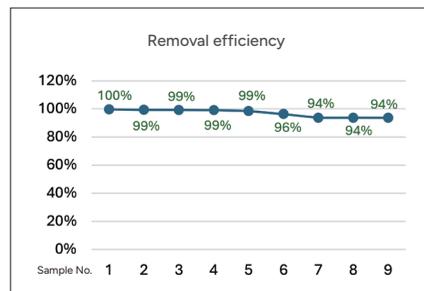
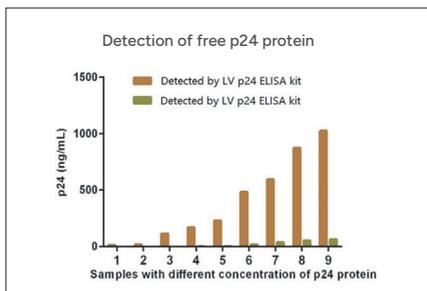
High Compliant With Regulations

Comply with the latest regulations in the "Technical Guiding Principles for Pharmaceutical Research and Evaluation of In Vitro Gene Modification Systems (Trial)", Drug Evaluation Center of the State Drug Administration, May 2022

* Attention should be paid to the impact of free p24 protein on the results

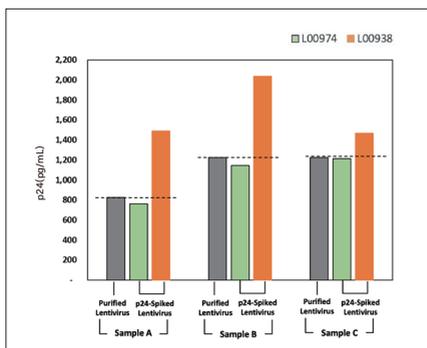
Validation Data

Effectively reduce interference from free p24



The removal efficiency of free p24 protein by L00974 is $\geq 90\%$

High accuracy



L00974 has higher accuracy

L00974 only detect the p24 protein in the lentiviral capsid; L00938 detect the total p24 (p24 protein in the lentiviral capsid and free p24 protein)

* Purified Lentivirus Sample:

The sample containing purified lentivirus particles with little or no free p24 protein.

* p24-Spiked Lentivirus Sample:

Free p24 protein was spiked into the samples from purified lentiviral samples.

MuLV Titer p30 ELISA Kit

Cat. No. L01041

Key Features



Superior Stability

CV < 10% for the same sample over four weeks, ideal for consistent long-term QC



High Accuracy

Recovery rate controlled at 80%-120%



Efficient Detection

Complete results in approximately 2 hours

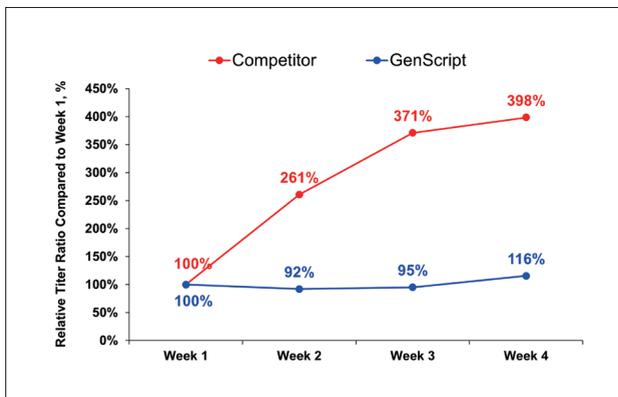


Convenient Storage

All kit components are conveniently stored at 2–8°C

Validation Data

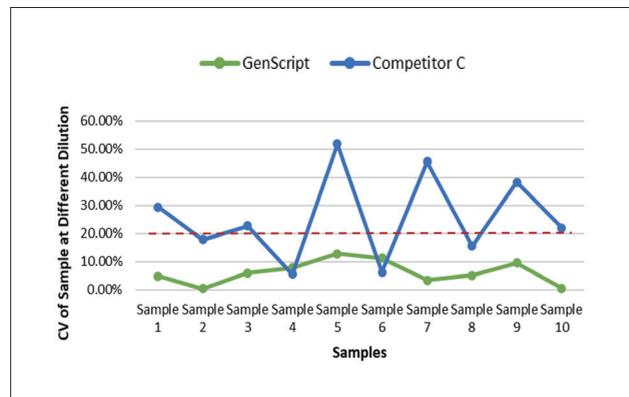
Comparison on Stability



*In a four-week study, GenScript MuLV Titer p30 ELISA Kit and a competitor's product were used to test the same sample.

GenScript's kit demonstrated superior stability, maintaining highly consistent detection values throughout the study period.

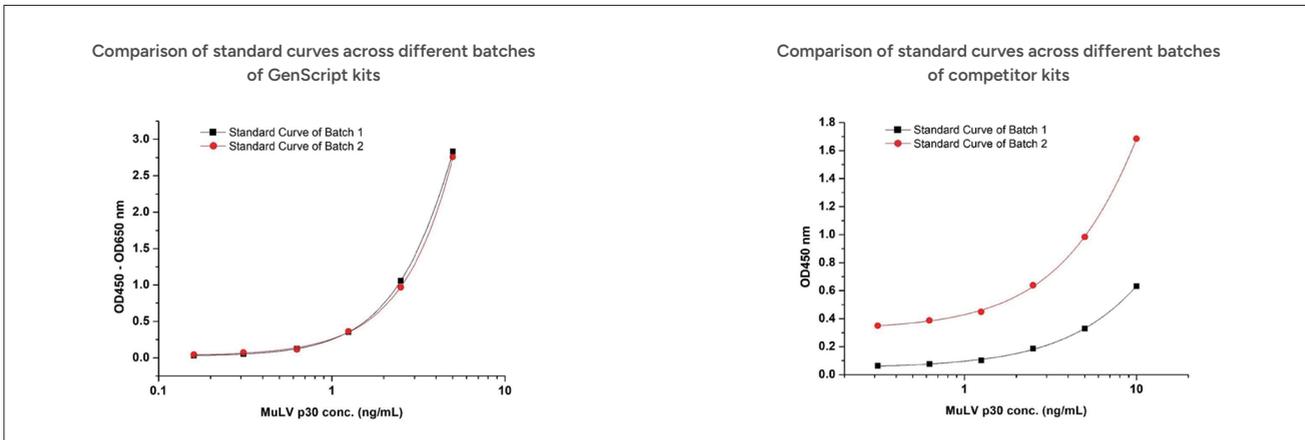
Comparison on Sample Dilution Linearity



*In the dilution linearity analysis, GenScript's Kit and a competitor's kit were used to test the same sample diluted by N-fold and 4N-fold.

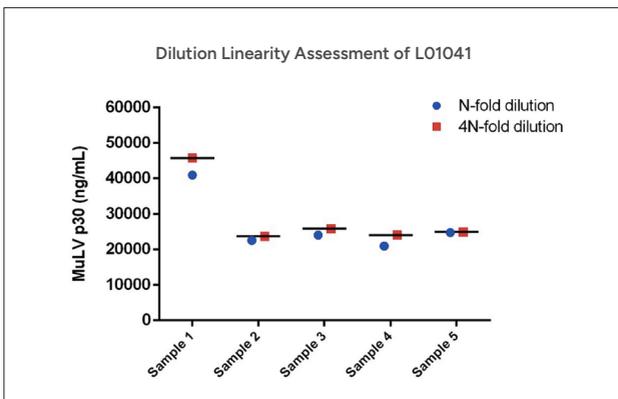
GenScript's kit provided accurate and reliable test results across different dilution factors.

• Comparison on Batch Consistency



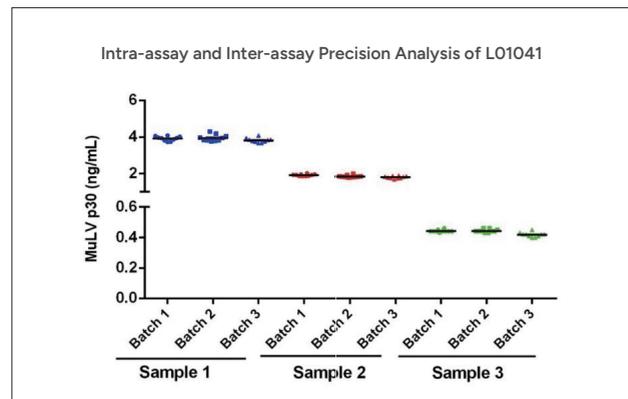
In batch-to-batch precision analysis, GenScript's Kit demonstrated highly consistent standard curves, simplifying data analysis across different batches compared to competitors.

• Dilution Linearity



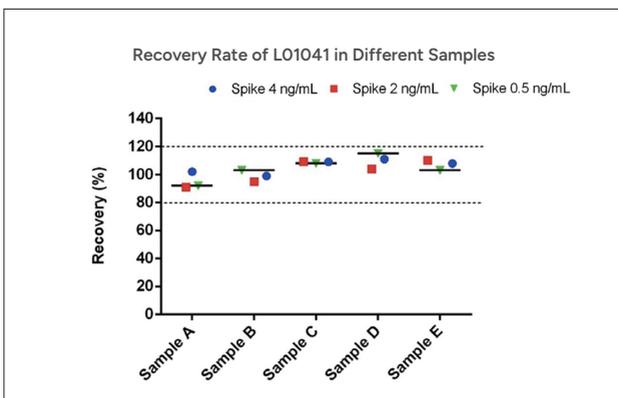
The results of L01041 are not affected by the dilution factor

• Precision Analysis



Intra-assay CV ≤ 10% and Inter-assay CV ≤ 10%

• Recovery rate



*Different concentrations of MuLV p30 standard were added to samples of different unknown concentrations.

The recovery of MuLV p30 spiked in each sample was stable between 80% and 120%.

AAVX Titer Capsid ELISA Kit — Multiple Serotypes

Cat No. L01035

Key Features



Multiple Serotype Coverage

Suitable for but not limited to the titer detection of AAV1, 2, 5, 6, 8, 9



High Assay Precision

Intra-assay CV \leq 10% and Inter-assay CV \leq 10%



Short Detection Time

2.5 hours



Standard

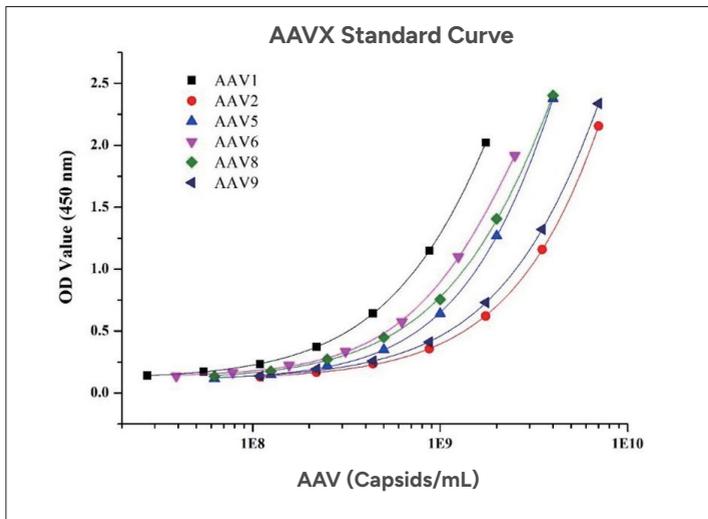
L01035 provides AAV2 standard
* Standards for other single serotypes need to be prepared by the user.



In-House Raw Material Production

To ensure high purity, specificity, consistency, and stability

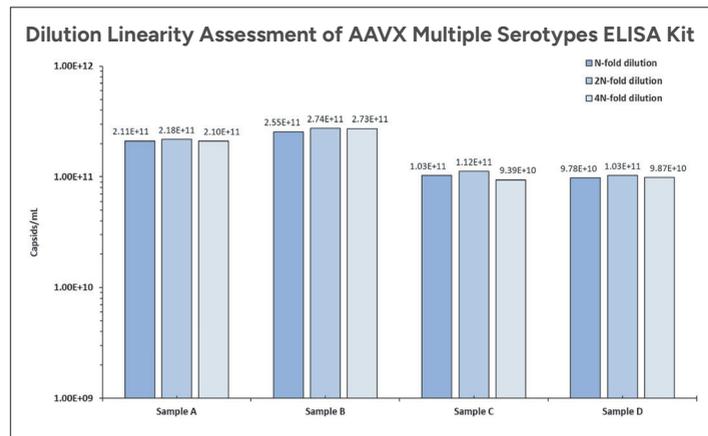
Standard Curve



The standard curves were established by using different single AAV serotype standards.

Validation Data

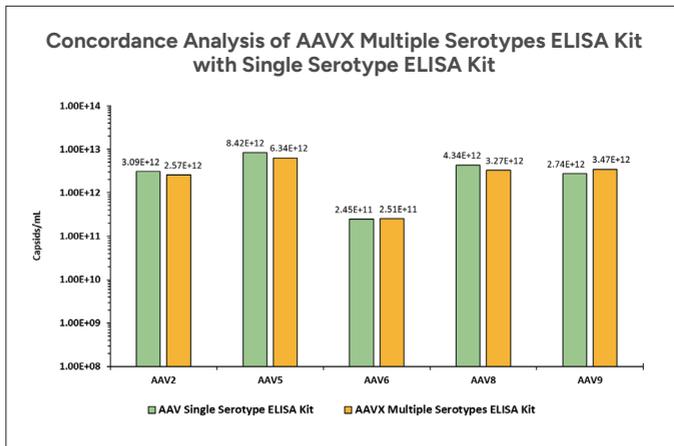
Excellent Dilution Linearity



*Set three different dilution factors for each of the three different samples to analysis the dilution linearity of L01035.

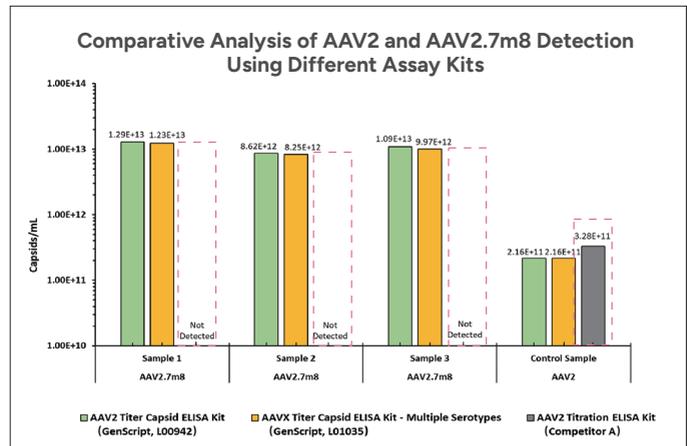
The results of L01035 are not affected by the dilution factor.

• **Multiple Serotype Titer Universal Detection**



The results of AAVX ELISA kit are consistent with those of different single AAV serotype ELISA kits, and the coefficient of variation (CV) is within 20%.

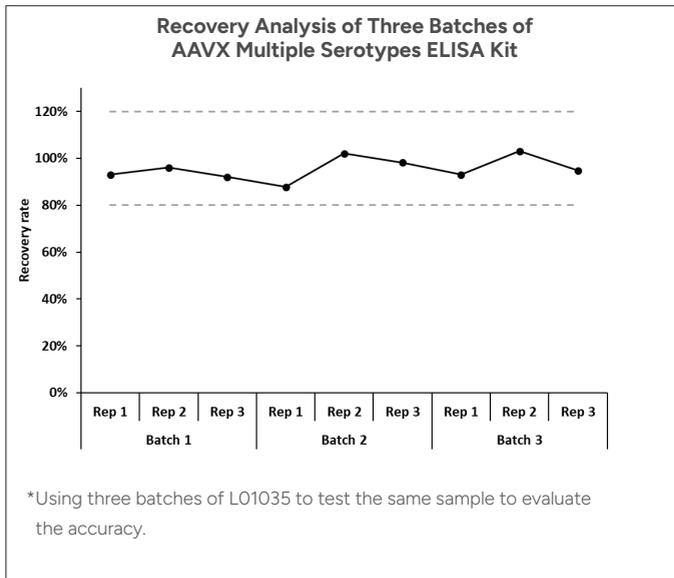
• **High Applicability for the Modified AAV2.7m8**



For the detection of AAV2.7m8 Titer:

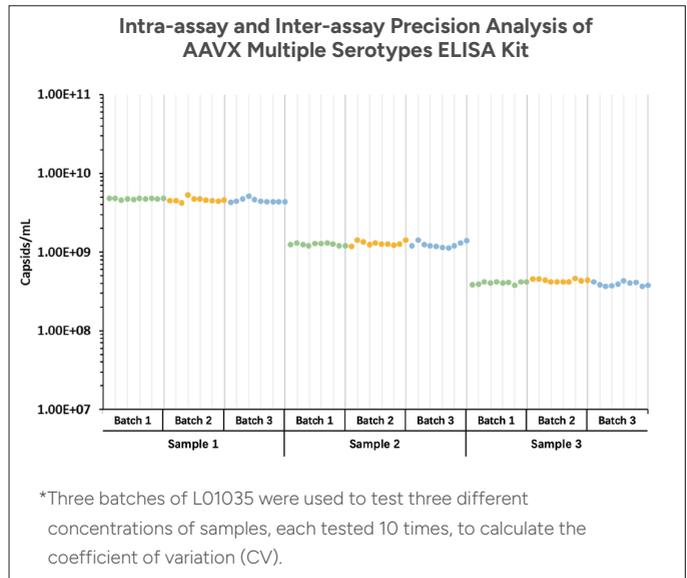
Both GenScript's AAVX ELISA kit (L01035) and AAV2 ELISA kit (L00942) are capable of detecting AAV2.7m8 and demonstrate good consistency.

• **High Assay Accuracy**



The recovery rate of L01035 was between 80% and 120%.

• **High Assay Precision**



Intra-assay CV ≤ 10% and Inter-assay CV ≤ 10%.

Residual Detection ELISA Kits

- BSA ELISA Kit
- Cas9 ELISA Kit
- Protein A ELISA Kit, 2G
- Double-stranded RNA (dsRNA) ELISA Kit (J2 based)
- T7 RNA Polymerase ELISA Kit

BSA ELISA Kit

Cat. No. L00976

Key Features



Ultra Sensitivity

LoB: 0.14 ng/mL; LoQ: 0.5 ng/mL



High Specificity

No HSA interference

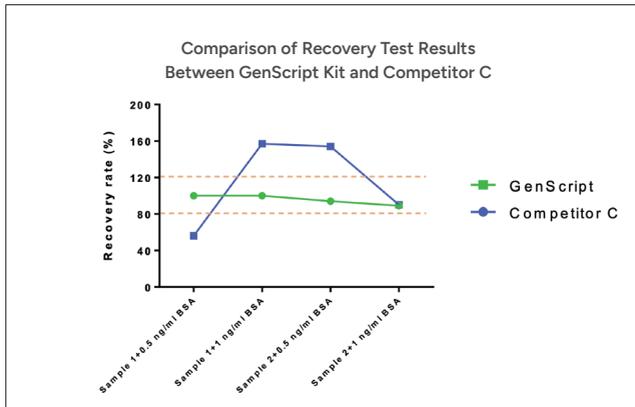


Reliable Standard

Traceable standard & accurate calibration

Competitive Performance

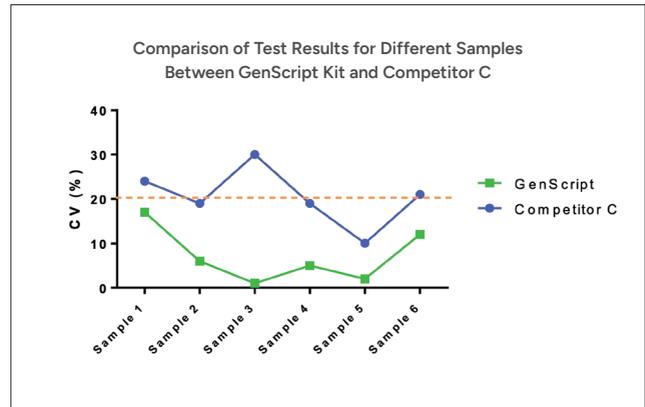
Consistently High Recovery



*Two samples were spiked with low concentration of BSA and then tested using the GenScript kit and competitor C kit to evaluate the recovery rate.

BSA ELISA kit demonstrates a recovery rate of 80%–120%, ensuring greater accuracy.

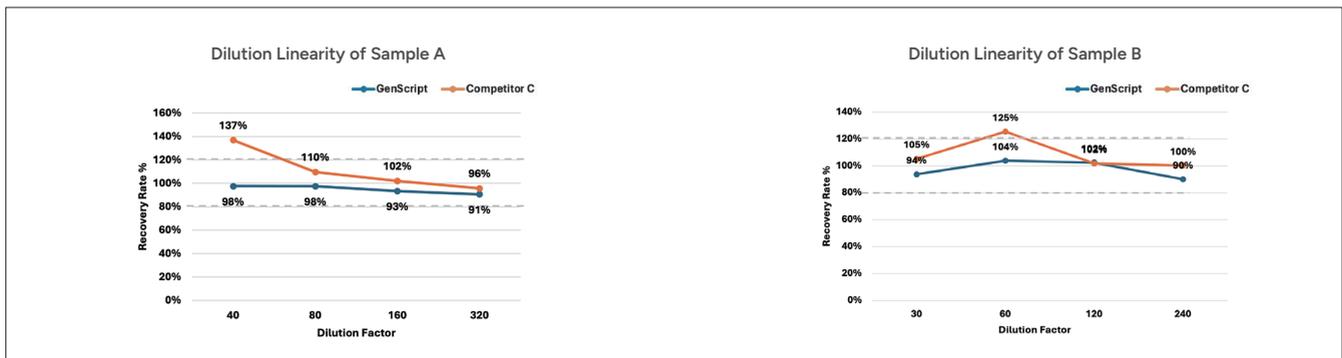
Low Variation



*Different samples were tested using GenScript kit and competitor C kit to evaluate the coefficient of variation (CV%).

The test results from the GenScript kit exhibit a CV of less than 10%, ensuring more stable outcomes.

Wide Dilution Linearity

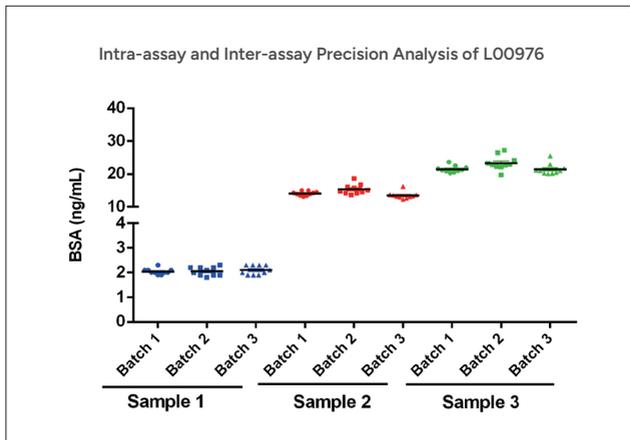


*GenScript BSA ELISA kit and competitor C kit were used to test two identical samples at different dilutions to evaluate the recovery rate.

The results from the GenScript kit remained consistent and unaffected by the dilution factor.

Validation Data

High Precision



Intra-assay and Inter-assay CV ≤ 10%.

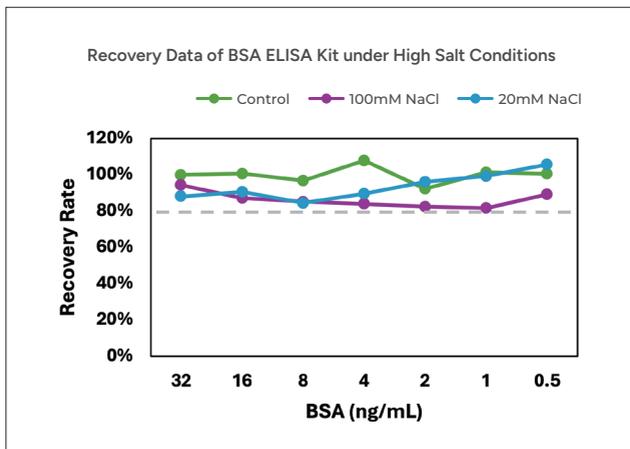
High Specificity

HSA Spiked Conc. (ng/mL)	BSA Theoretical Conc. (ng/mL)	BSA Measured Conc. (ng/mL)	BSA Recovery Rate (%)
20	8	6.5	81
10	8	6.8	83
1	8	7.7	96
0.1	8	8.5	107

*Different concentrations of HSA (Human Serum Albumin) were spiked into the samples and blank matrices to evaluate the specificity of L00976.

The results of L00976 are not affected by the HSA.

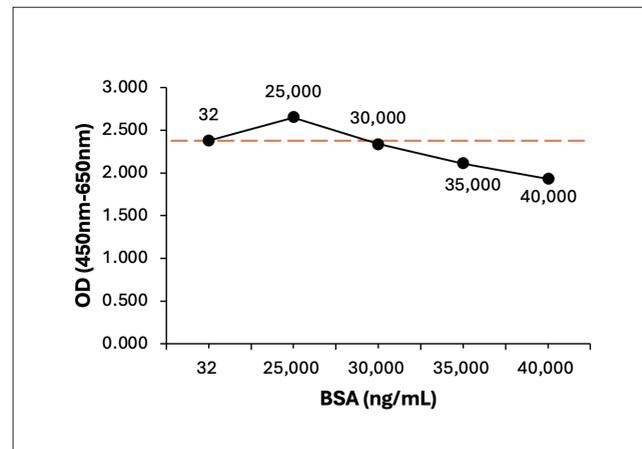
High Salt Tolerance



*BSA ELISA Kit was used to test samples diluted with 100mM NaCl or 20mM NaCl.

The results of BSA ELISA Kit are not affected by high salt condition.

Hook Effect



The HOOK effect appears when the BSA concentration in the samples over 30,000 ng/mL.

Cas9 ELISA Kit

Cat. No. L01069

Key Features



High Versatility

Cas9 with different mutants and variants, numbers, or locations of nuclear localization signals can all be recognized



High Sensitivity

0.125 ng/ml (0.05 fg/cell), surpassing competitors by 12-fold

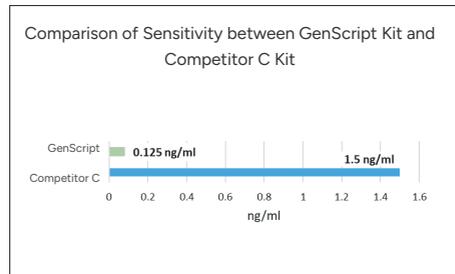


High Accuracy

Recovery rate between 80% and 120%

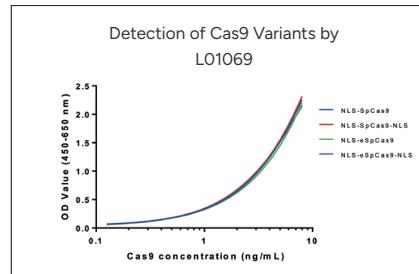
Validation Data

High Sensitivity

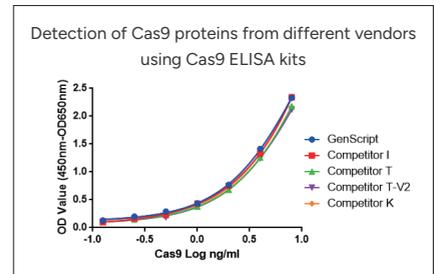


The sensitivity of the Cas9 ELISA kit exceeds that of competitors by 12-fold.

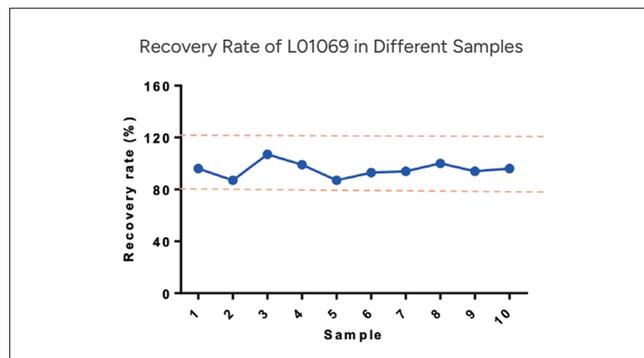
High Versatility



The Cas9 ELISA kit can recognize Cas9 with different mutants and varying types, numbers, or locations of nuclear localization signals.

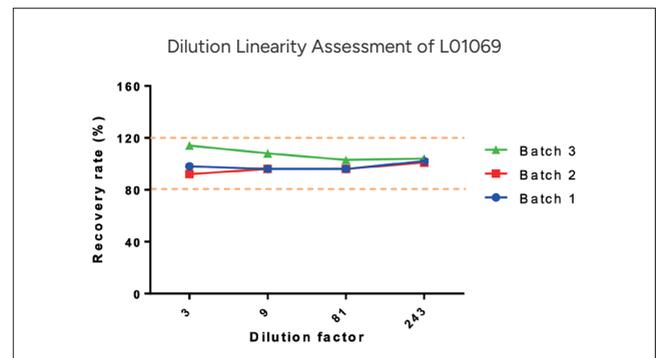


High Accuracy



The Cas9 ELISA kit was used to test 10 different CAR-T samples generated with Cas9 with various spike concentrations from 0.25-4 ng/mL, and the recovery rate was between 80% and 120%.

Excellent Dilution Linearity



*Three batches of Cas9 ELISA kits were used to test samples with different dilution factors to evaluate the recovery rate.

The recovery rate of different batches of kits is not affected by the dilution factor.

Protein A ELISA Kit, 2G

Cat. No. L01043

Key Features



Easy to use

No sample boiling required



Anti-IgG Interference

Accurately quantifying protein A in up to 10 mg/mL IgG



Short Assay Time

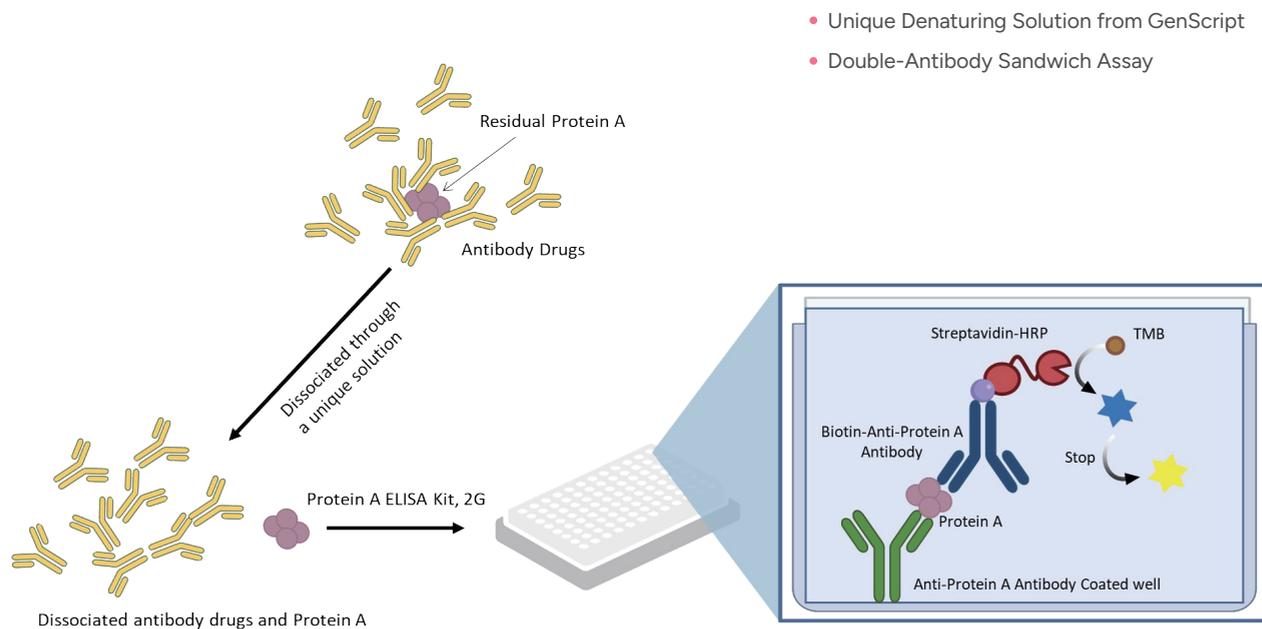
Less than 2 hours
(Incubation for 1 hour and 25 minutes)



Broad Recognition

Native, recombinant variants and alkaline-resistant recombinant Protein A

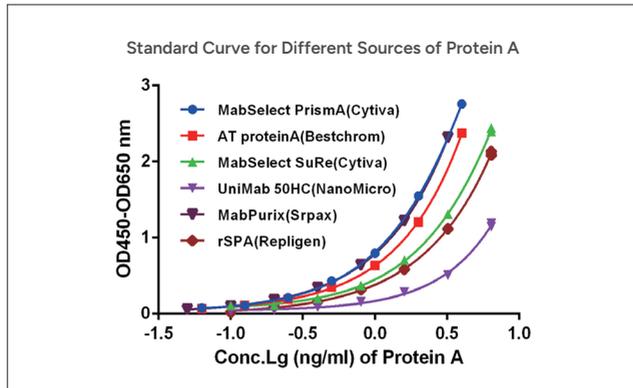
Assay Principal



Schematic diagram of Protein A ELISA Kit, 2G

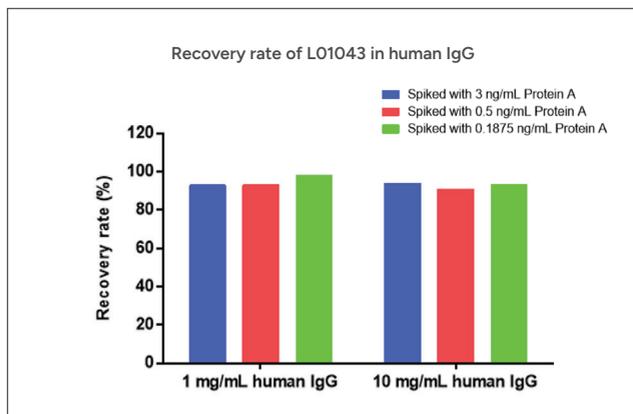
Validation Data

• Wide applicability



Standard curves and working ranges of different Protein A Ligands

• Anti-IgG Interference

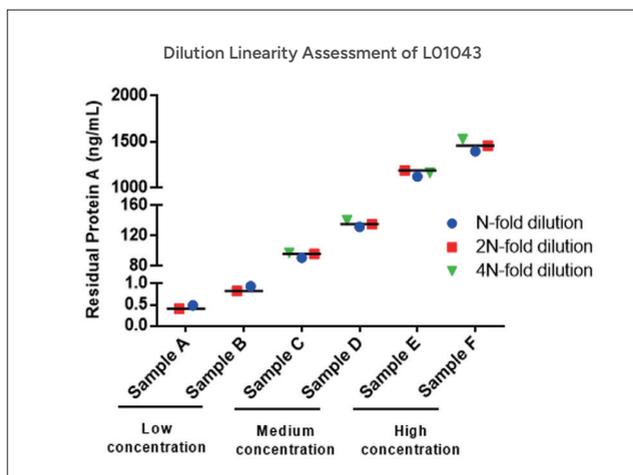


Protein A (ng/mL)	Spiked to 1 mg/mL human IgG		Spiked to 10 mg/mL human IgG	
	Measured (ng/mL)	Recovery Rate	Measured (ng/mL)	Recovery Rate
3	2.795	93%	2.816	94%
0.5	0.463	93%	0.453	91%
0.1875	0.184	98%	0.174	93%

*L01043 kit detects Protein A in IgG samples with different concentrations

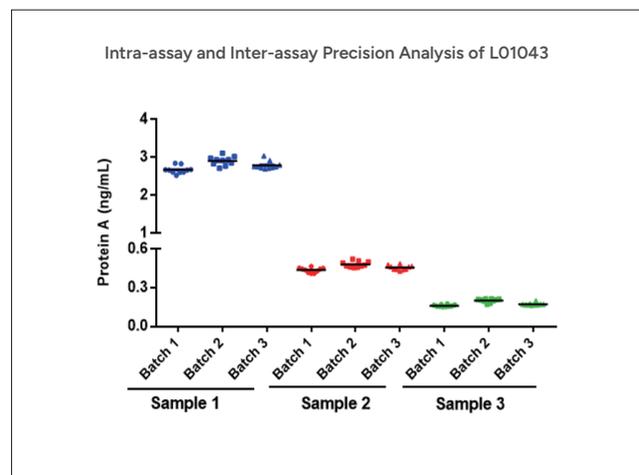
The recovery rate of L01043 are not affected by high IgG concentrations

• Dilution Linearity



The results of L01043 are not affected by dilution factors and concentrations

• Intra-assay and Inter-assay Precision



Intra-assay and Inter-assay CV \leq 15%

Double-stranded RNA (dsRNA) ELISA Kit (J2 based)

Cat. No. L01020

Key Features



Dual J2 Antibody Usage

J2 antibody was used as both Capture antibody and Detection antibody.



Short Assay Time

3 hours



Wide Linear Range

0.123-30 ng/mL



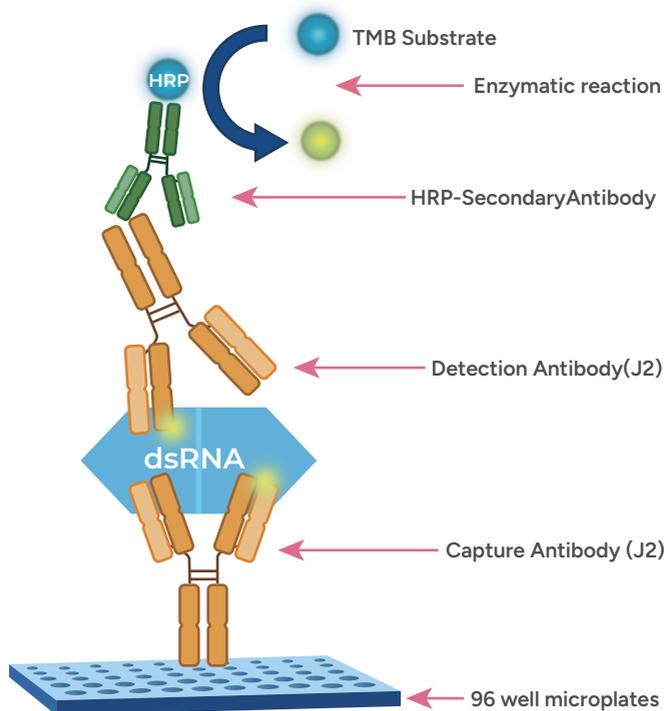
Various dsRNA standard options

400-bp m1Ψ dsRNA standards prepared in the kit.

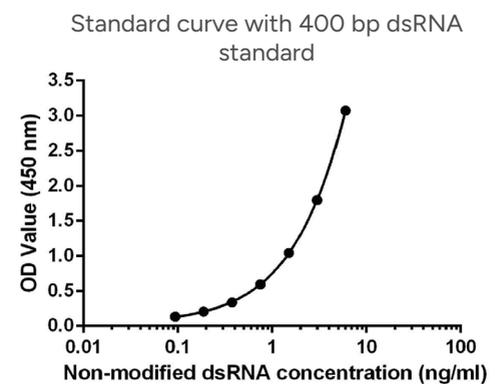
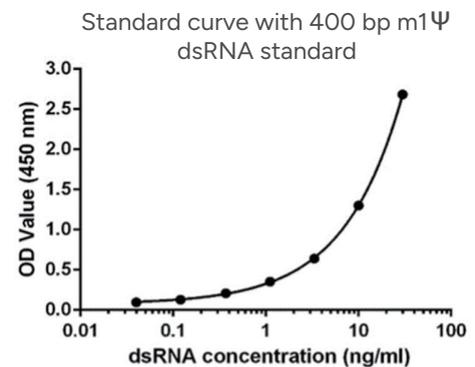
Individual dsRNA standard with different sequence, length and modification including 5-methylcytidine (m5C), 5-methyluridine (m5U) and N1-methylpseudouridine (m1Ψ) can be provided.

*GenScript can offer different dsRNA standards with the technologies published by Moderna and BioNTech researchers.

Assay Principal

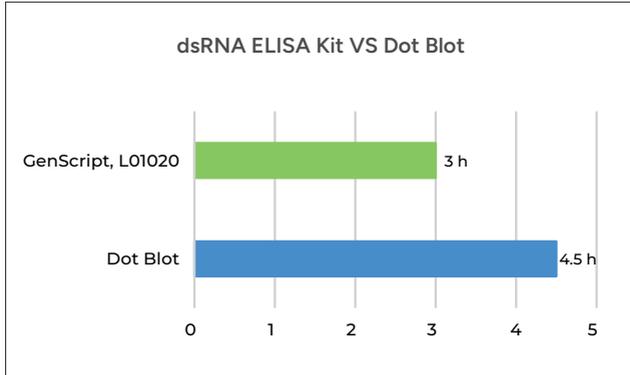


Standard Curve



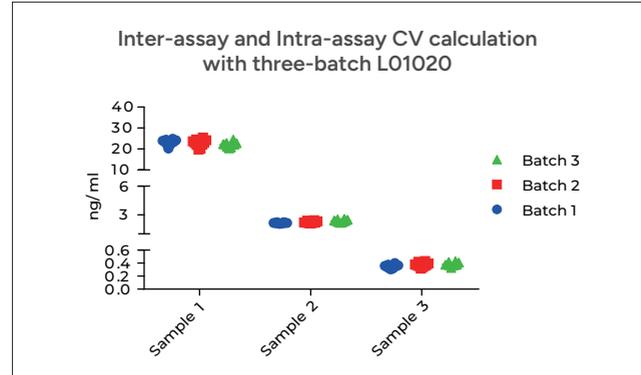
Validation Data

Short Assay Time



The testing time for L01020 is 3 hours.

High Assay Precision



Intra-assay CV \leq 10% and Inter-assay CV \leq 10%.

Excellent Dilution Linearity

Dilution Factor	Expected dsRNA Conc. (ng/mL)	Measured dsRNA Conc. (ng/mL)	Accuracy%
1000	0.738	0.755	102.3
100	0.738	0.787	106.6
50	0.738	0.799	108.3

*Using L01020 to test different dilution factor of the same sample to evaluate dilution linearity.

The results of L01020 are not affected by the dilution factor.

High Specificity

dsRNA Conc. (ng/mL)	mRNA Conc. (ng/mL)	Measured dsRNA Conc. (ng/mL)	Accuracy%
30	300	27.79	92.6
30	30	28.21	94.0
0.123	300	0.138	112.2
0.123	30	0.115	93.5

*Two concentrations (ULOQ 30 ng/mL and LLOQ 0.123 ng/mL) of samples were spiked with different amounts of mRNA (30 ng/mL and 300 ng/mL) to evaluate the specificity of L01020.

The results of L01020 are not affected by the matrix.

T7 RNA Polymerase ELISA Kit

Cat. No. L01110

Key Features



Short Detection Time

Only 1.25 hours



High Sensitivity

Less than 0.1 ng/ml, 5 to 7 times higher than competitors



Wide Recognition

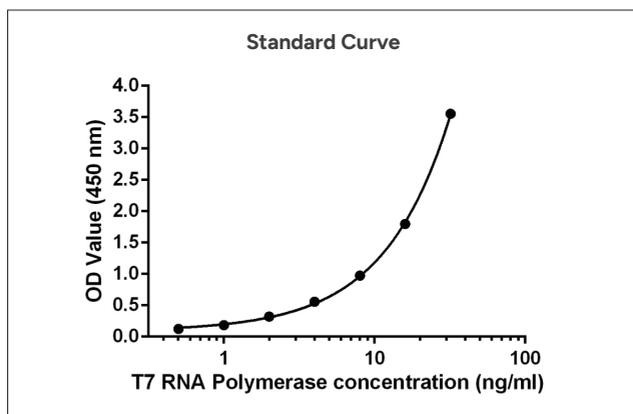
Capable of identifying T7 RNA Polymerase from different vendors



High Specificity

Exclusively recognizes T7 RNA Polymerase, resistant to interference from other IVT tool enzymes

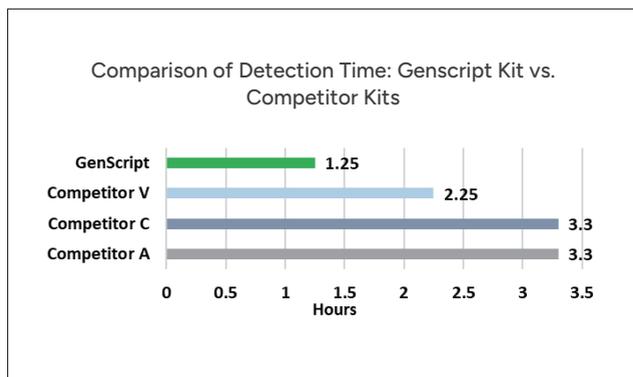
Standard Curve



Linear Range for GenScript T7 RNA Polymerase ELISA Kit: 0.25 to 32 ng/ml, $R^2 > 0.99$

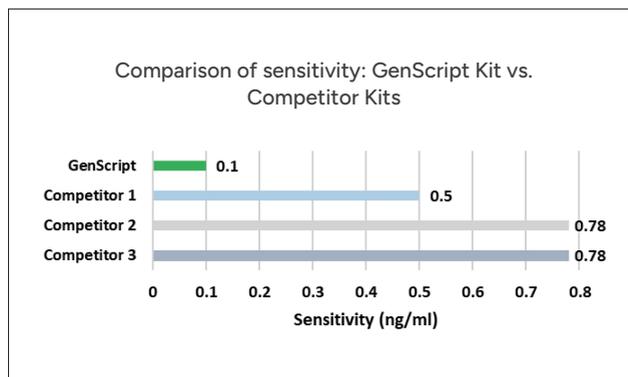
Validation Data

Short Detection Time



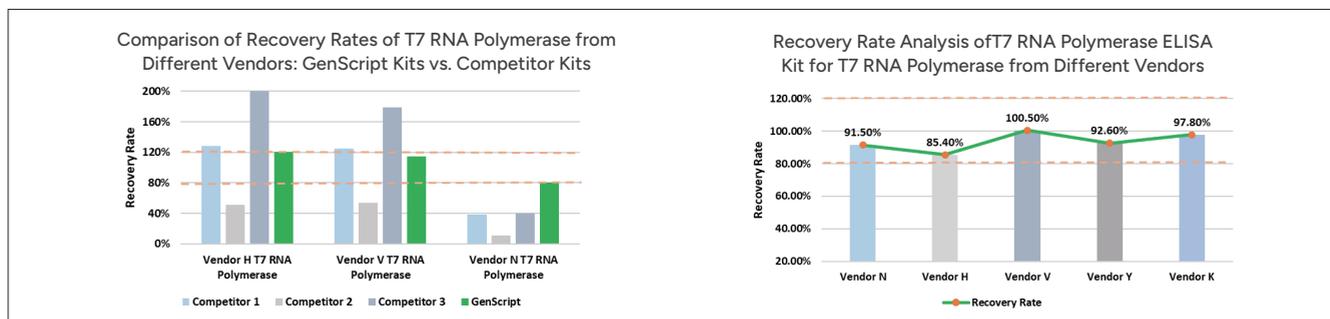
GenScript T7 RNA Polymerase Kit has a detection time of only 1.25 hours.

High Assay Precision



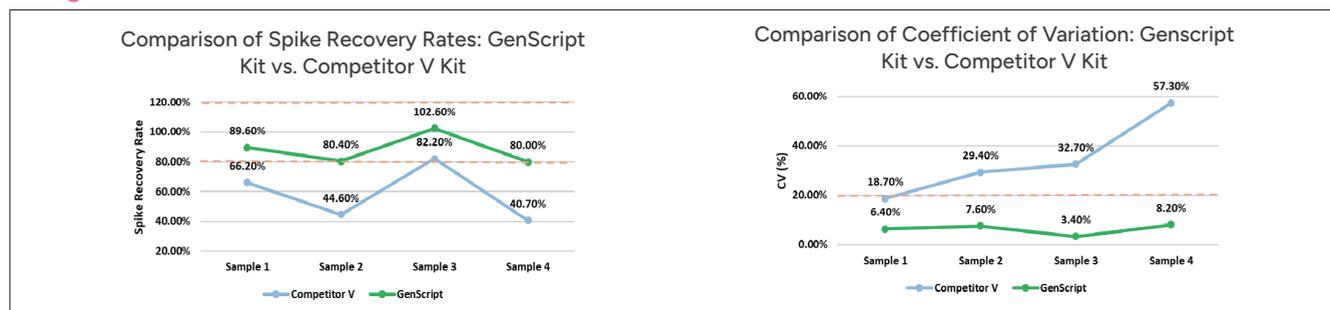
GenScript T7 RNA Polymerase Kit has a detection sensitivity of 0.1 ng/ml.

Wide Recognition



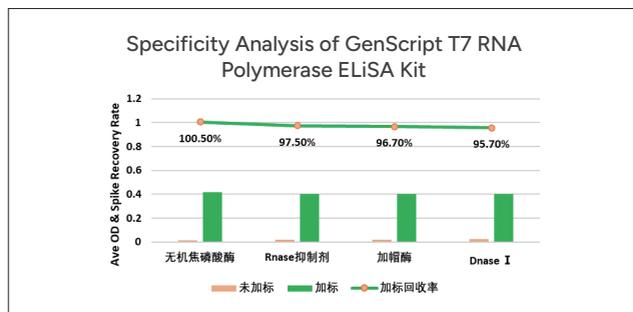
GenScript T7 RNA Polymerase Kit not only recognizes T7 RNA Polymerase from different vendors but also achieves a recovery rate of 80%-120%.

High Precision



GenScript T7 RNA Polymerase Kit ensures high accuracy and reliable results.

High Specificity



GenScript T7 RNA Polymerase Kit specifically recognizes T7 RNA Polymerase and is resistant to interference from other IVT tool enzymes.

Related Products

Type	Cat. No.	Product Name
dsRNA detection	L01020 ^{hot}	dsRNA ELISA Kit (J2 based)
	L01078 ^{hot}	dsRNA ELISA Kit (K1&K2)
	A02181	dsRNA Antibody (J2)
	A02182	dsRNA Antibody (K1)
	A02184	DNA-RNA Hybrid Antibody (S9.6)
Endotoxin detection	L00350	ToxinSensor™ Chromogenic LAL Endotoxin Assay Kit
	L00351	ToxinSensor™ Gel Clot Endotoxin Assay Kit
	L00856-L00859	ToxinSensor™ Single Tests Kit with Standard
	L00338	ToxinEraser™ Endotoxin Removal Kit
	L01109 ^{hot}	Recombinant Factor C Endotoxin Detection Kit



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