

Catalog Products

2021



- ✓ Protein Analysis
- ✓ Protein Purification
- ✓ Stable Cell Lines

- ✓ CRISPR Cas9 System
- ✓ Molecular Biology
- ✓ Proteins and antibodies



Available in Canada from...

MJS
BioLynx
INC.

1-888-593-5969 • www.biolynx.ca • tech@biolynx.ca



GenScript Products

Over the years, GenScript's scientists have developed many innovative technologies that allow us to maintain our position at the cutting edge of biological and medical research, while offering cost-effective solutions for customers to accelerate their research and development. GenScript offers a broad range of products including AmMag™ SA automated purification system, eZwest™ Lite for automated immunodetection, eBlot™ L1 fast protein transfer system, eStain™ L1 protein staining system, SurePage™ precast gels, antibodies, proteins, protein A/G/L resins, stable cell lines and CRISPR products.

Please visit our website at www.genscript.com to find new product information, cutting-edge tools and resources, as well our complete portfolio of products and services. As our products and services are constantly updated to align with new innovations and advances in biological research, we encourage you to check our website for the most current information on all GenScript products and services.

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Protein Analysis

eZwest™ Lite Automated Western Device

eZwest™ Lite is a fully automated blotting device completing the entire process of blocking, primary and secondary antibody incubations and washing steps. When desired, the primary antibody can be recovered for re-use.



Consistent Results



Antibody Saving



Programmable



Completely Hands-off



SurePAGE™ precast gels

SurePAGE™ Bis-Tris gels are high-performance precast mini polyacrylamide gels that are designed to separate a wide range of protein sizes by electrophoresis. SurePAGE™ gels are cast in a neutral pH buffer that minimizes polyacrylamide hydrolysis and increases gel stability.

Running Buffer Recommendations

MES buffer: proteins <30 kD, 20+ min @200V

MOPS buffer: proteins >30kD, 30+ min @200V



Large well volume



High resolution and reproducibility



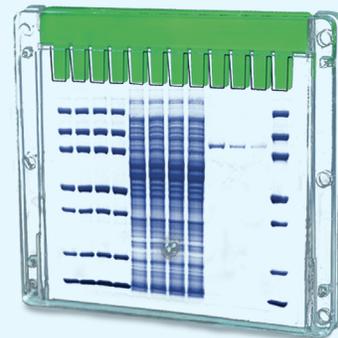
Long shelf life



Cost effective



Compatible cassette design





eStain™ L1 Protein Staining System

- Patented protein staining technology developed by GenScript that integrates the traditional three steps of fixing, staining and de-staining into one step
- Stain and de-stain 1 or 2 mini gels in 10 mins
- Sharp stained protein bands and sensitivity (>12.5 ng)
- Staining results are equivalent or better to traditional staining methods



Efficient Clean
Convenient



Staining results are
equivalent to or better than
traditional staining methods



Staining in less
than 10 minutes



Staining reagents
pumped automatically



Compatible with
all types mini PAGE gels



eBlot™ L1 Wet Protein Transfer System

- Achieve complete wet transfers of 1 or 2 mini gels in 9 mins
- Results are equivalent to traditional wet transfer and highly consistent
- The setup takes less than 2 minutes and supports outstanding performance for small, medium and large proteins



Better transfer
efficiency



Fast transfer time
of 9-17 minutes



High transfer
efficiency for all
protein sizes



Easy to assemble, one
button operation



Programmable:
customized protocols



Transfer 1 or 2
gels at a time

Protein/Antibody Purification Products

AmMag™ SA Plus Semi-automated System

AmMag™ SA automates protein or antibody purification using antibody or recombinant protein binding magnetic beads with high throughput and high capacity. For antibody and protein purification, our AmMag™ protein A magnetic beads and AmMag™ Ni magnetic beads can be cleaned with NaOH and reused several times.



Purifies up to 12 samples at a time



Sample volumes from 2 ml to 50 ml



Up to 80 mg of protein or antibody per sample



Typical time for 12 samples is less than 48 minutes



A total of 4 interchangeable channels for wash/elution buffer



Minimum elution volume of 0.4 ml



Magnetic Beads

GenScript MagBeads are coated with recombinant protein ligands that enable highly specific affinity binding to antibodies and epitope-tagged proteins.

Antibody MagBeads	Tagged Protein MagBeads
Protein A	Ni-charged
Protein G	AmMag™ Ni
Protein A/G	Glutathione
AmMag™ Protein A	Streptavidin
Protein L	MonoRab™ Anti-DYKDDDDK

Browse the full list of magnetic beads: www.genscript.com/Magnetic_bead_products.html

Magnetic Racks, Blocks and Wands

GenScript provides magnetic racks that help you purify proteins from multiple scales of cell lysates:

- Small scale (≤ 2 mL)
- Medium-scale (2 – 50 mL)
- Large-scale (500 - 1000 mL)

Protein/Antibody Purification Products

Purification Resins

GenScript provides a variety of simple-to-use affinity purification resins for batch/gravity purification, allowing for efficient, convenient and reliable separation of proteins and antibodies from your crude sample for further applications.

Most popular protein purification resins selection

Cat No	Resin Products
L00209	Protein G Resin
L00206	Glutathione Resin
L00210	Protein A Resin
L00239	Protein L Resin
L00666	High Affinity Ni-charged Resin FF
L00353	Streptavidin Resin
L00425	Anti-DYKDDDDK IP Resin
L00680	Protein A Resin FF Prepacked Column
L00681	Protein G Resin FF Prepacked Column

Browse the full list of magnetic beads:
www.genscript.com/Magnetic_bead_products.html



Endotoxin Removal Kit (Cat No: L00338)

ToxinEraser™ Endotoxin Removal System is based on an affinity matrix of modified polymyxin B, which allows for efficient endotoxin removal from proteins, peptides, and antibodies.

High binding capacity: at least 2,000,000 EU/ml (CV)
High recovery yield: >90% with minimized sample loss
High stability and high removal efficiency

Endotoxin Detection System

ToxinSensor™ Endotoxin Detection System uses FDA recommended Amebocyte Lysate testing method to achieve a fast and highly sensitive endotoxin assay.

Quantitative Detection

ToxinSensor™ Chromogenic LAL Endotoxin Assay Kit (L00350/L00350C)

Qualitative Detection

ToxinSensor™ Gel Clot Endotoxin Assay Kit (L00351)

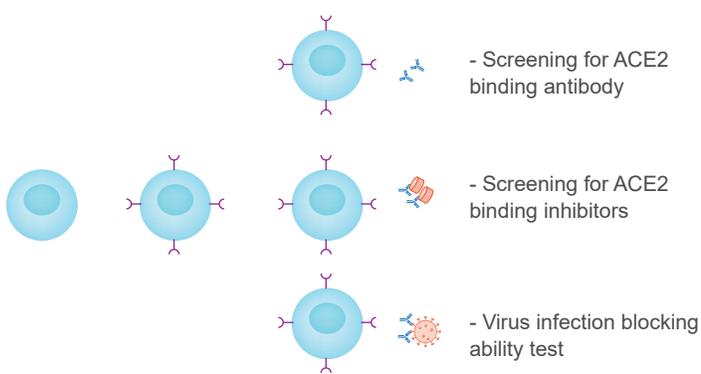


Stable Cell Lines

Key Features

- Single clone
- High S/B ratio
- Tested stable for 15 passages
- Ready-to-use

Application Examples



Protein of Expression	Cell Line	Cat.No.
ACE2	HEK293/ACE2	M00770
ACE2	CHO-K1/ACE2	M00771

Key Features

- Validated for spike protein expression and human ACE2 binding
- Easy to use in binding assays or as immunogens

Protein of Expression	Cell Line	Cat.No.
SARS-CoV-2 Spike protein	CHO-K1/ Spike Stable Cell Line	M00803
SARS-CoV-2 Spike protein	HEK293/ Spike Stable Cell Line	M00804

ACE2 Stable Cell Lines

High expression ACE2 cell lines for drug discovery to treat COVID-19

SARS-CoV-2 Spike Protein Cell Lines

High expression of SARS-CoV-2 for drug discovery to treat COVID-19

Immune Checkpoint Stable Cell Lines

50+ over-expression cell lines for binding assays and reporter cell lines for functional assays

Key Features

- Pre-made and ready-to-use
- Cell lines for binding assays: High level surface expression verified by FACS assay
- Reporter cell lines for functional assays: high S/B ratio for easy signal detection

Performance Data

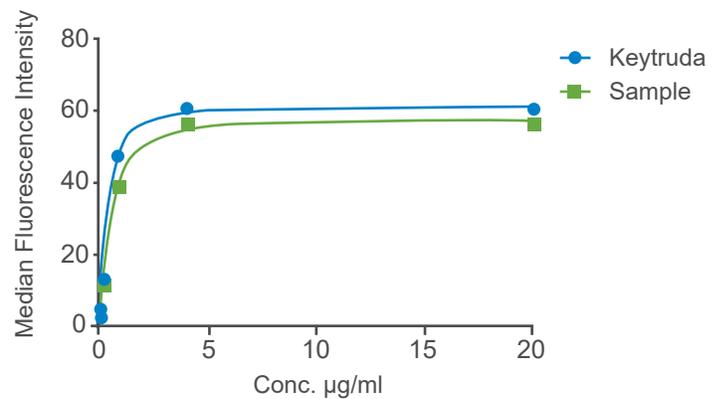


Fig. 1A FACS binding assay on CHO-K1/PD1 cells (Cat.No M00529)

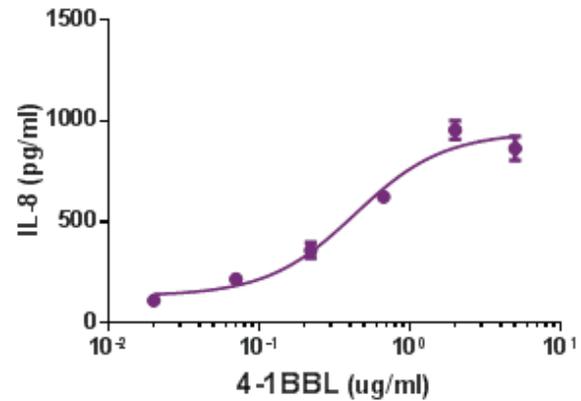


Fig. 1B Functional Assay on GS-H2/4-1BB reporter cells (Cat. No. M00609)

Stable Cell Lines

Key Features

- Ready to use for antibody binding, affinity and half-time analyses.
- 8 most popular FcγR members including polymorphic versions.

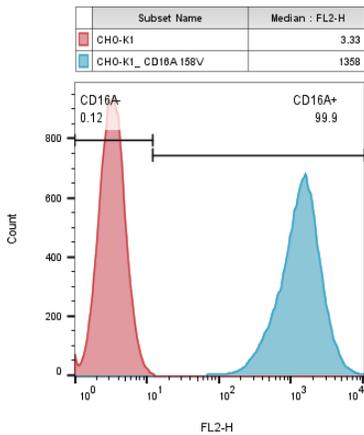


Figure 2. Validation of receptor expression. FACS analysis of human CD16A 158V expression in CHO-K1/human CD16A 158V clone. Cat. # M00597.

Fc Receptor Stable Cell Lines

Ready-to-use for your antibody screening

Key Features

- High functional protein expression on the cell surface
- Stable cell lines for increased reliability and reproducibility
- Flexible functional readouts are available
- Ga15 expressing cells can be used directly for FLIPR analysis

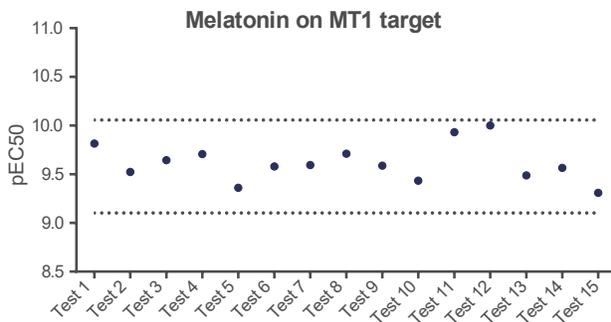


Fig.3 MT1 GPCR assay detecting intracellular calcium mobilization on CHO-K1/MT1/Gα15 cells(Cat.no M00424). An example of reproducibility over 15 tests.

GPCR Stable Cell Lines

150+ ready for screen products

Browse the full list of Stable Cell Lines:

https://www.genscript.com/cell_lines.html?src=pullmenu

GenScript offers a variety of GenCRISPR™ kits and nucleases to support your gene editing needs.

Target Selection & sgRNA Design

GenScript sgRNA Design Tool

gRNA Synthesis

GenCrispr gRNA synthesis kit (L00694)

The gRNA synthesis kit is an all-in-one synthesis kit including the template DNA and T7 RNP

sgRNA Efficiency Screening

GenCrispr sgRNA screening kit (L00689)

The GenCrispr sgRNA Screening Kit enables simple, reliable, and rapid methodology for assessing sgRNA efficiency before cell transduction, allowing identification of the highest efficiency sgRNA.

Gene Editing

GenCrispr Cas9 Enzymes

GenScript offers a wide variety of GenCrispr Cas9 enzymes, including Cas9 nuclease and its mutant forms enabling higher specificity, reduced off-target effects, nuclear localization, and immediate detection using enhanced green fluorescent protein.

[Browse the GenCrispr Cas9 portfolio.](#)

Mutation Efficiency Assessments

GenCrispr mutation detection kit (L00688)

A simple, reliable, and rapid method for detection of site-specific cleavage of genomic DNA that is extracted from cells transfected with constructs expressing engineered nucleases.

GenCrispr T7 Endonuclease I

A quick and easy to use tool to verify genome editing efficiency, the T7 Endonuclease I is a structure-selective enzyme that recognizes and cleaves duplex DNA, cruciform DNA, nicked double-stranded DNA, and other non-desirable structures.

Molecular Biology

GenBuilder™

GenBuilder™

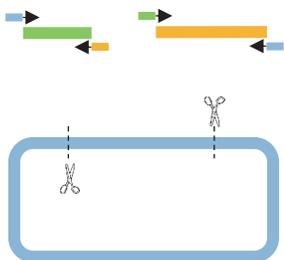
DNA Assembly Cloning Kits

GenScript's GenBuilder™ DNA Assembly kits offer seamless, **one-step** cloning of **1 to 12 DNA fragments** into linearized vectors with the **highest efficiency in the industry**. These cloning kits can be used for various applications including assembly of single stranded DNA (ssDNA), high throughput cloning, gene mutation, and plasmid library construction.

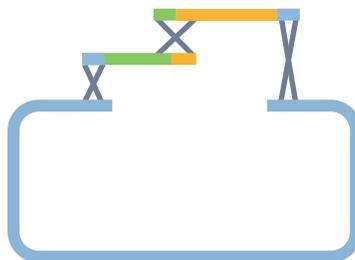
Kit Benefits:

- Robust performance omitting the need to perform PCR fragment purification
- Quick optimized incubation time with the reaction being complete in **15 minutes**
- Consistent and reliable fragment assembly with **90% of successful colonies** being PCR positive
- PCR fragment size cloning flexibility with fragments as large as **8kp**

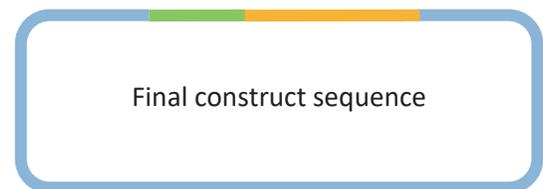
GenBuilder™ mechanism of action



1. Prepare the DNA fragments with 15-bp overlaps and the linearized vector for assembly. No pre-existing recombination sites or helper sequences are required for restriction and ligation process.



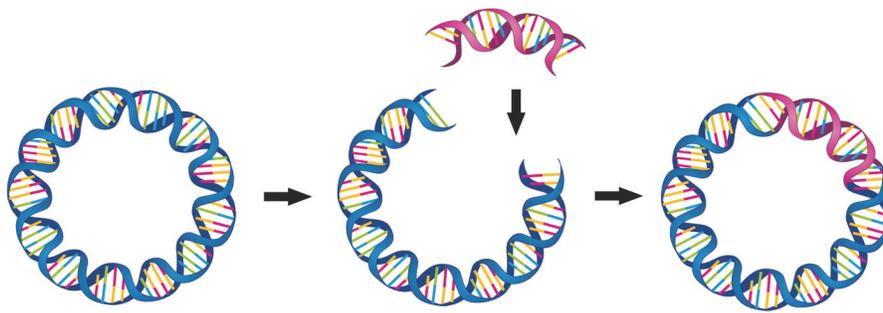
2. Add DNA fragments and linearized vectors in the GenBuilder™ master mix. Mix well and incubate at 50 °C for 15-50 minutes.



3. Transform the assembly product into competent cells and plate on selective medium. Obtain colonies containing the assembled DNA which can be confirmed using PCR and/or sequencing.

PCR Cloning Vectors

GenScript offers unique expression vectors with enhanced promoters for efficient expression, selection, and analysis of recombinant proteins.



Product (part number)	Description
pGS-21a (SD0121)	Designed for cloning of high-level expression and convenient purification of proteins fused with both 6xHis and GST.
pGen2.1 (SD0122)	Human cytomegalovirus (CMV) promoter-based mammalian gene expression vector.
pDream2.1/MCS (SD0222)	An excellent expression vector with seven restriction enzyme sites in the MCS. The gene cloned into MCS can be expressed in any one of the three major protein expression systems: Bacteria, Insect cells and Mammalian cells.
pUC18 plasmid DNA (SD1162)	A plasmid cloning vector commonly used with <i>E. coli</i> , with a vector length of 2,686 bp.
pUC57 plasmid DNA (SD1176)	A plasmid cloning vector commonly used with <i>E. coli</i> , with a vector length of 2,710 bp.

Molecular Biology

PCR Reagents

PCR Reagents

Our various offerings in PCR reagents provide laboratories with reliable performance, enhanced specificity, increased yields, reduced primer-dimers, convenient and cost-effective solutions.

Product	Description
Hot Start DNA Polymerase	Includes Hot Start Antibody and Hot Start Taq DNA Polymerase. Key benefits include a thermostable complex and increased primer specificity.
Tag DNA Polymerase	Offerings include Green taq DNA Polymerase, which is ideal for amplification of large DNA fragments (up to 10 kb)
Taq Master Mix	This ready-to-use Master Mix is a 2x concentrated solution containing the Taq Polymerase, buffer, MgCl ₂ and dNTPs.
High-Stability PCR Kit	The high stability PCR kit consists of Green Taq DNA polymerase, 10x buffer and stabilized dNTP mix
Reverse Transcriptase	The GenScript M-MuLV Reverse Transcriptase (M-MLV) synthesizes a complementary (cDNA) strand initiating from a primer using an RNA template strand, ideal for a wide range of applications.
Tag Antibodies	The Hot Start mouse monoclonal antibody specifically binds to Taq DNA polymerase to render the enzyme inactive. The antibody-mediated hot start enhances the specificity and sensitivity of PCR.
dATP, dGTP, dCTP, dTTP, dNTP	A variety of nucleotides mixes are available as convenient, ready-to-use solutions.

Browse the full list of PCR Reagents: <https://www.genscript.com/pcr.html>

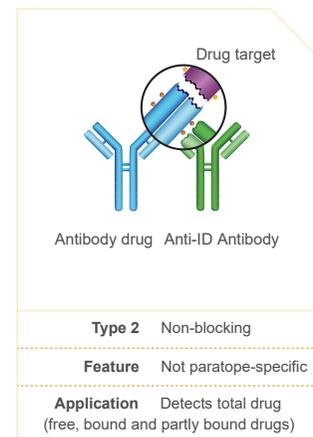
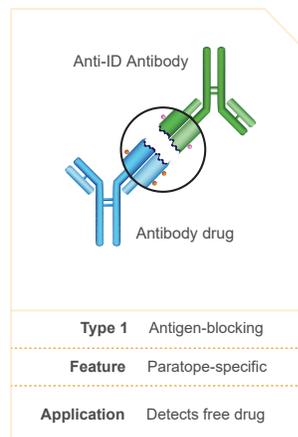
Anti-idiotypic Antibodies

To support pharmacokinetics and immunogenicity studies of biosimilars

Key features

- Anti-ID pairs available for sandwich ELISA
- Broad detection range and accurate concentration result
- MonoRab™ rabbit monoclonal antibody is perfect for picomolar-level immunoassay sensitivity

Product Types



THE™ Elite Antibodies

THE best quality antibodies that meet the most demanding research requirements

Key features

- **Ultra Specificity** - No non-specific binding
- **Ultra Sensitivity** - More sensitive than other antibodies on the market
- **Ultra Affinity** - Ultra-low dissociation constant K_d
- **Ultra Reactivity** - Recognize and bind to target antigens by a wide range of species and expression systems
- **Ultra Stability** - Lot-to-lot consistency and lyophilized form is stable for at least two years at appropriate storage condition

Antibodies

Product types

- THE™ Elite Tag & Cell Marker Antibodies
- THE™ Elite Loading Control Antibodies
- THE™ Elite Assay Antibodies

Key features

- MonoRab technology guarantees high affinity: $K_d \approx 10^{-11}M$
- No cross reactivity with other species
- Recognizes the variable domain of camelid (Llama and Camel) antibodies
- Specific to camelid IgG2 & IgG3
- Recognizes conformational epitope

Applications of MonoRab™ rabbit anti-camelid VHH antibodies

- VHH antibodies screening or titer determination
- Selection of heavy chain antibody-expressing B cells in peripheral blood mononuclear cells (PBMC)
- Expression evaluation and sorting of CAR-T cells harboring a camelid single domain antibody

Browse the full list of Catalog Antibodies:

https://www.genscript.com/catalog_antibody.html?src=pullmenu

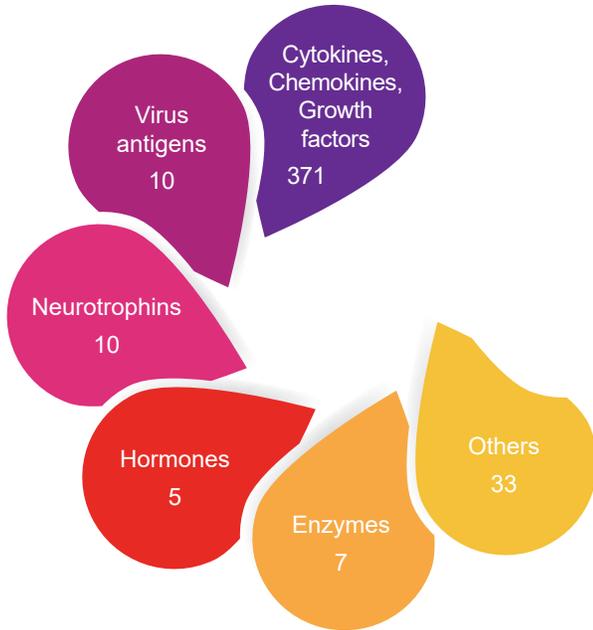
THE™ Elite Antibodies

The best quality antibodies that meet the most demanding research requirements

MonoRab™ Anti-Camelid VHH Antibodies

Unique Tools for Detecting Camelid Single Domain Antibodies

Recombinant Proteins



GenScript offers a variety of fast production and high quality recombinant proteins, including 350+ cytokines, chemokines and growth factors. We also deliver the latest SARS-CoV-2 antigen RBD to support your pandemic research.

Selected Cytokines	<ul style="list-style-type: none"> • IL-2, Human • PDGF-BB, Rat • VEGF165, Human • TNF-α, Mouse • TGF-β1, Human • IL-11, Human
Selected Virus Antigens	<ul style="list-style-type: none"> • SARS-CoV-2 Spike protein RBD, His Tag • SARS-CoV-2 Nucleocapsid protein, His Tag • SARS-CoV-2 Spike protein S1
Selected Other Proteins	<ul style="list-style-type: none"> • Streptavidin • PD-1, His Tag, Human • CD47, His Tag, Human • PD-L1, His Tag, Human • Noggin, Human (CHO-expressed)



Applications

Cell Activity Test

Functional Assays

Cell Culture

Immunoassay



Features

High Purity & Activity

Excellent lot-to-lot consistency

Tested for high biological activity

Additive-free freeze-drying technology

Low endotoxin levels

Customized quantities available

Browse the full list of Recombinant Proteins: https://www.genscript.com/recombinant_proteins.html?src=pullmenu

cPass™ SARS-CoV-2 Neutralization Antibody Kit

Studies have shown that NAbs play an important role in the development of immunity to a disease and are important considerations in vaccine development efforts. There is still much to learn about the NAbs that result from SARS-CoV-2 infection. The cPass™ SARS-CoV-2 Neutralization Antibody Kit (for research use only) is an extremely useful, first-of-its-kind research assay that facilitates the specific detection of NAbs in a sample.



Herd Immunity



Immunity Passport



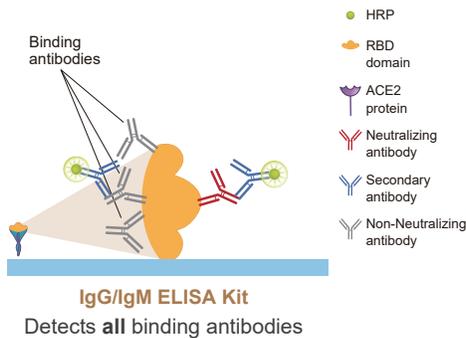
Therapy Validation



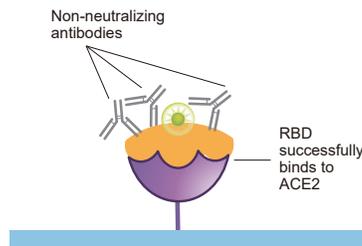
Vaccine Efficacy



Currently Available Antibody Tests

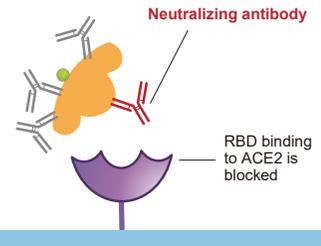


cPass™ Negative Test



cPass™ SARS CoV-2 Neutralization Antibody Detection Kit
Specifically detects **neutralizing** antibodies

cPass™ Positive Test



Comparison between PRNT and cPass™ Test (Research Use Only)

	Plaque Reduction Neutralization Test	
	Positive (n=26)	Negative (n=40)
GenScript SARS-CoV-2 Surrogate Virus Neutralization Test Kit	Positive	2
	Negative	38
	Positive Percent Agreement (95% CI 87.1 - 100.0%)	95.0% (95% CI 83.5 - 98.6%)
	Negative Percent Agreement	

A direct comparison between the gold standard Plaque Reduction Neutralization Test (PRNT) and the cPass™ SARS-CoV-2 Neutralization Antibody kit. A study of 66 (26 positive and 40 negative) samples showed excellent correlation of results between the cPass™ kit and PRNT.

Ordering and Technical Support

For your convenience, you may place your order by the method that is best for you: choose to order online, by email, phone, mail, or fax. Our highly efficient customer service representatives will process your order quickly and accurately.

Order Online

You have two options for placing orders electronically:

- Get your account, and place your order online after you login in at <http://www.genscript.com>
- Email your order to order@genscript.com

Order by Phone, Mail, or Fax

When you order, please include the following information:

- Name and phone number of the end user
- Name of the principal investigator
- Name and phone number of the purchasing agent
- Catalog number and description of product
- Quantity and size of product
- Shipping address
- Billing address



Order by Phone

Call 1-732-885-9188 to place your order by phone. You will speak directly with a helpful customer service representative. GenScript provides 24-hour service Monday through Friday.

You can also place your order by voicemail anytime, day or night. We accept Visa, MasterCard, American Express, and the American Express Corporate Purchasing Card.



Order by Fax

Fax your order to: 1-732-210-0262 /
1-732-885-5878



Order by Mail

If you would like to send us written confirmation of your order, please be sure it is clearly marked "Confirming Order—Do Not Duplicate".

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- Customer Service
Email: order@genscript.com
Phone: 1-732-885-9188 / 1-732-885-9688
Toll-free phone: 1-877-436-7274

International Orders

International customers should order directly from the nearest authorized distributor of GenScript products. For the location of the nearest distributor, refer to the distributor address list at <http://www.genscript.com/distributor.html>. International customers can easily order from GenScript directly without local distributor for most countries. The estimated shipping price is based on FedEx international priority with 1LB FedEx Envelope and 3LB Box.

www.GenScript.com

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