GenuIN® 4x Viral Lysis Buffer # VL101

GenuIN BIOTECH
Real Matters

Catalog & Pricing

Cat. #	Description	Size
VL101-10	Denaturing lysis buffer. Suitable for WB and ELISA.	10 mL
VL101-20		20 mL
VL101-50		50 mL

Background

Complete lysis of SARS-CoV-2 and host cells in human specimens is the first step in downstream immunoassays. The GenuIN® 4x Viral Lysis Buffer is proprietarily formulated to lyse biospecimens of patients with COVID-19 or SARS-CoV-2 coronaviruses from cultured cells. This denaturing buffer contains a special formula for complete lysis of viral and cellular proteins.

Features of the Buffer

- Tested and optimized for Western blotting and ELISA applications
- Ready-to-use solution
- Effective for the extraction of nuclear, cytosolic and membrane proteins
- Prevent proteolysis and loss of PTMs without having to add protease or phosphatase inhibitors

Product Details

Form

Liquid

Concentration

4x

Tested Application

Western blotting

ELISA

Storage

Stable at room temperature for at least 1 year.

Instructions for Use:

1. Mix 1 part of GenuIN® 4x Viral Lysis Buffer with 3 parts of distilled H2O or biospecimens to make 1x Viral Lysis Buffer.

2. Lyse the cells or specimens on ice for 20 min with constant agitation or vortexing.
3. Store lysates at -20°C or use them immediately for downstream applications.

VALIDATION DATA

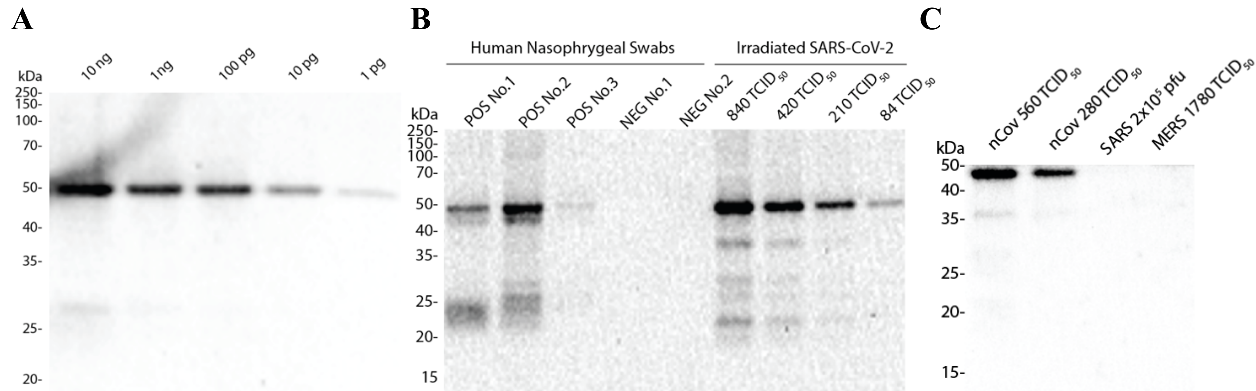

Figure 1. Antibody specificity and cross-reactivity test. Serial dilutions of recombinant SARS-CoV-2 N protein (Cat# VPN2) (**A**), 3 positive and 2 negative human nasopharyngeal swab specimens (20 µL) (**B**), and different concentrations of gamma-irradiated SARS-CoV-2 (nCoV, **B&C**), SARS-CoV (SARS) (**C**), and MERS (**C**) were lysed in the Viral Lysis Buffer (Cat# VL101) and blotted with rabbit monoclonal anti-N primary antibody (Cat# VY7N, 1:2,000). HRP-conjugated highly cross-adsorbed goat anti-rabbit secondary antibody (Cat# 202, 1:2,000) was applied. The blots were incubated using the PiQ^{TM} ECL Substrate Kit (Cat# 636) and imaged using a chemiluminescence digital imager. Note that 1) the NP POS No.3 swab had a very low viral load; and 2) There was no cross-reactivity of the antibody with SARS or MERS.

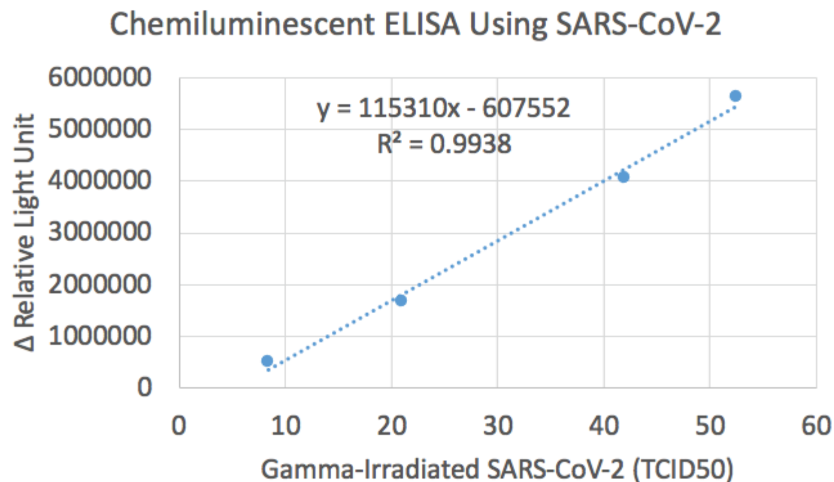

Figure 2. Chemiluminescent ELISA using SARS-CoV-2. Different concentrations of gamma-irradiated SARS-CoV-2 viruses were lysed in the Viral Lysis Buffer (Cat# VL101) and coated (150 µL) on microplate wells. Rabbit monoclonal anti-N antibody (Cat# VYN7, 1:10,000 dilution) and HRP-conjugated highly cross-adsorbed goat anti-rabbit secondary antibody (Cat# 202, 1:20,000) were used to detect the SARS-CoV-2 N protein. PiQ^{TM} ECL substrates (Cat# 636) were used to produce chemiluminescent signals. RLU, relative light unit. ΔRLU = RLU of the well with the primary antibody - RLU of the corresponding well without the primary antibody, everything else being equal.