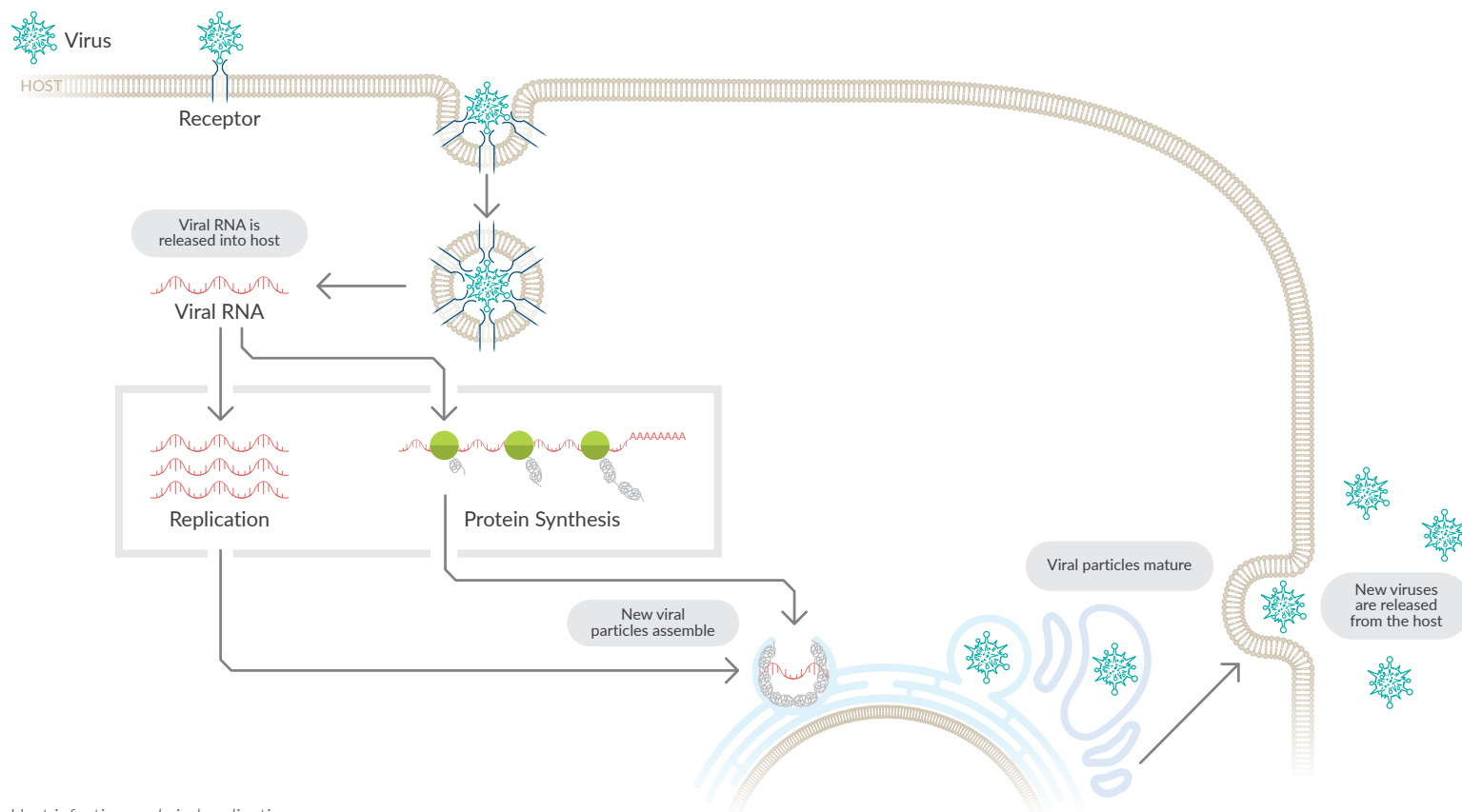


# Antiviral Research Tools

Cayman provides a diverse set of antiviral agents that can be used to study the treatment and prevention of infectious diseases. This toolset can be used to further understand the virus growth cycle and key signaling pathways, including those mediating antiviral immune responses.



Host infection and viral replication.

## Simplify Screening & Hit-Seeking

### Antiviral Screening Library

Item No. 30390

A library of more than 410 antiviral-associated compounds including those with antiviral activity against HIV, hepatitis B virus, coronaviruses, and more.

### SARS-CoV-2 Screening Library

Item No. 9003509

A made-to-order compound library curated through *in silico* modeling using Maestro (Schrödinger Suite) software by screening over 70,000 compounds targeting SARS-CoV-2 proteins.

### FDA-Approved Drugs Screening Library

Item No. 23538

A library of approximately 892 FDA-approved compounds including antiviral and antibiotic agents.



# Antiviral Compounds

## Entry/Fusion Inhibitors

### CCR5 Antagonists

Chemokine (C-C motif) receptor 5 (CCR5) is expressed on the surface of certain immune cells, including CD4<sup>+</sup> T cells, where it mediates HIV entry. CCR5 antagonists inhibit HIV entry by blocking the interaction between HIV and CCR5.

### CCR5 Antagonists

Item No.	Product Name
14641	Maraviroc
28448	TAK-220
28453	Vicriviroc (maleate)

See all CCR5 antagonists at [www.caymanchem.com](http://www.caymanchem.com)

### Abl Kinase Inhibitors

Blocking virus-host fusion with Abl kinase inhibitors is one antiviral strategy, since this kinase activity is required for viral entry.

Item No.	Product Name
16253	GNF-2
16254	GNF-5
13139	Imatinib (mesylate)
11497	Saracatinib

See all Abl family & Bcr-Abl inhibitors at [www.caymanchem.com](http://www.caymanchem.com)

## Oxysterol-binding Protein Inhibitors

Oxysterol-binding protein (OSBP) plays a vital role in producing the membrane-bound viral replication organelles that form at the membrane contact sites between the ER and Golgi. OSBP-targeted compounds interfere with virus replication.

### Oxysterol-Binding Protein Inhibitors

Item No.	Product Name
13288	Itraconazole
30310	OSW-1

## Protease & Neuraminidase Inhibitors

Protease inhibitors block the viral life cycle by selectively preventing proteolytic cleavage that is essential to forming the replicase complex for viral replication. Viral neuraminidase inhibitors prevent the mobilization of the virus to and from the site of infection.

### HCV Protease Inhibitors

Item No.	Product Name
20835	Asunaprevir
18379	Boceprevir
22144	Simeprevir (sodium salt)
20054	Telaprevir

### HIV Protease Inhibitors

Item No.	Product Name
15866	Darunavir
13854	Lopinavir
15144	Nelfinavir (mesylate)
9001893	Saquinavir (mesylate)

### SARS-CoV-2 M Protease Inhibitors

Item No.	Product Name
31344	Bofutrelvir
35844	Ensitrelvir (fumarate)
35257	PF-07321332 (Nirmatrelvir)

See all protease & neuraminidase inhibitors at [www.caymanchem.com](http://www.caymanchem.com)

### Influenza Neuraminidase Inhibitors

Item No.	Product Name
15779	Oseltamivir Acid
23765	Peramivir
15123	Zanamivir

## Visit Our Coronavirus Resource Center

We've gathered our SARS-CoV-2 products, services, news, and literature as a resource page to help you navigate and discover the tools for coronavirus research at

[www.caymanchem.com/coronavirus](http://www.caymanchem.com/coronavirus)



Explore new uses for existing therapeutics against SARS-CoV-2 at [www.caymanchem.com/sars-cov-2antivirals](http://www.caymanchem.com/sars-cov-2antivirals)

## Reverse Transcriptase Inhibitors

Retroviruses reverse transcribe viral RNA into DNA for insertion into the host DNA. Nucleoside reverse transcriptase inhibitors (NRTIs) and non-nucleoside reverse transcriptase inhibitors (NNRTIs) have been developed to prevent viral replication by inhibiting reverse transcriptase activity.

### NRTIs

Item No.	Product Name
16879	Emtricitabine
18514	Lamivudine
13874	Tenofovir
15492	Zidovudine

See all NRTIs at [www.caymanchem.com](http://www.caymanchem.com)

### NNRTIs

Item No.	Product Name
26405	Doravirine
14412	Efavirenz
15117	Nevirapine
21559	Rilpivirine

See all NNRTIs at [www.caymanchem.com](http://www.caymanchem.com)

## Lipid Nanoparticle Tools

- Lipids
- Exploration & Uptake Kits
- Development Services

[www.caymanchem.com/lipids/pharma](http://www.caymanchem.com/lipids/pharma)

## How To Identify Viral Antigens

- Immunoepitope Profiling
- Candidate Peptide Synthesis
- Immunogenicity Assays

**GET STARTED**

## DNA & RNA Polymerase Inhibitors

Viruses encode their own polymerases for transcription and replication. A class of nucleotide analogs has been developed as antivirals to confuse polymerase activity, thus counteracting viral replication.

### RdRp Inhibitors

Item No.	Product Name
30469	GS-441524
30354	Remdesivir
16757	Ribavirin
23384	T-705 (Favipiravir)

See all DNA & RNA polymerase inhibitors at [www.caymanchem.com](http://www.caymanchem.com)

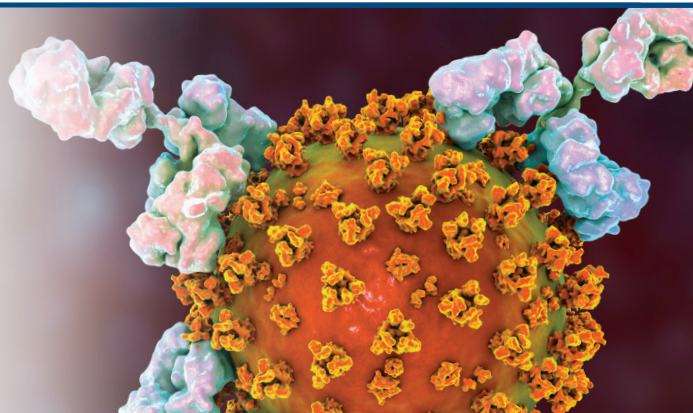
## Integrase Inhibitors

Retroviral integrases integrate viral DNA into host cell DNA, forming a provirus that can be activated to produce viral proteins. Integrase inhibitors block incorporation of the virus into host DNA by preventing covalent bond formation with host DNA.

### Integrase Inhibitors

Item No.	Product Name
26532	Bictegravir
22191	Dolutegravir
16071	Raltegravir (potassium salt)
70740	U-73122

See all integrase inhibitors at [www.caymanchem.com](http://www.caymanchem.com)



# cGAS-STING

## Antiviral Responses

### Cytosolic Nucleic Acid Sensing

Specific pattern recognition receptors (PRRs) are responsible for detecting cytosolic viral DNA or RNA and generating innate immune responses.

#### Cytosolic DNA Sensor

Item No.	Product Name
22810	cGAS (human, recombinant)
23853	cGAS Monoclonal Antibody (Clone 5G10)

#### Cytosolic RNA Sensor & Adaptor Proteins

Item No.	Product Name
25620	RIG-I helicase domain (human, recombinant)
25300	RIG-I Monoclonal Antibody (Clone 1E3)
26355	MAVS Monoclonal Antibody (Clone 7B9)

### *In Silico* Modeling & SPR Can Guide the Design of STING Agonists

SEE HOW

## Tools to Study cGAS Activity

Cayman offers robust, easy-to-use assays to screen modulators of human cGAS. Active cGAS enzyme, substrates, and positive control inhibitor are provided to screen for inhibitors.

#### cGAS Inhibitor Screening Assay Kit

*Item No. 701930*

Uses a competitive ELISA platform to directly measure 2'3'-cGAMP as an indicator of cGAS activity

#### cGAS TR-FRET Inhibitor Screening Assay Kit

*Item No. 702120*

Uses a homogenous TR-FRET platform compatible with high-throughput screening applications



Learn more about our assays to study cGAS activity and screen for inhibitors at [www.caymanchem.com/cGASassays](http://www.caymanchem.com/cGASassays)

#### cGAS Inhibitors

Item No.	Product Name
31029	CU-32
31030	CU-76
28318	G150
32515	PF-06928215
31765	RU-521

## STING Signaling Pathways

Upon sensing viral DNA in the cytosol, cGAS is activated to produce cyclic dinucleotides (CDNs). Binding of CDNs to STING activates signals that stimulate IFN genes.

#### CDNs & Negative Controls

Item No.	Product Name
17753	Cyclic di-AMP (sodium salt)
17144	Cyclic di-GMP (sodium salt)
22485	Cyclic di-IMP (sodium salt)
33890	Cyclic di-UMP (sodium salt)
22419	2'2'-cGAMP (sodium salt)
19887	2'3'-cGAMP (sodium salt)
17966	3'3'-cGAMP (sodium salt)
33886	5'-pApA (sodium salt)
33889	5'-pGpG (sodium salt)

#### STING Agonists

Item No.	Product Name
30022	CAY10748
28054	diABZI STING Agonist-1 (hydrochloride)
14617	DMXAA
35454	M04

See all STING agonists online at [www.caymanchem.com](http://www.caymanchem.com)

#### Interferon Pathway Modulators

Item No.	Product Name
17869	Dimethyl biphenyl-4,4'-dicarboxylate
30960	IFN- $\alpha$ -IFNAR-IN-1 (hydrochloride)
20449	RO8191
22402	StA-IFN-1