

## 产品手册

SARS-CoV-2 spike(LP.1)Pseudotyped Virus (GFP-Luciferase)

SARS-CoV-2 spike(LP.1)Pseudotyped Virus (GFP-Luciferase)S 蛋白假病毒

For research use only!

本品仅供科研使用，严禁用于治疗！

版本号：V6.0

## 目录

一、	产品基本信息及组分.....	3
二、	包装、运输及储存.....	3
三、	原理描述.....	3
四、	产品简介.....	4
五、	相关产品.....	4

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## 一、产品基本信息及组分

### 基本信息

产品编号	产品名称
GM-0220PV189	SARS-COV-2 Spike(LP.1) Pseudotyped Virus (GFP-Luciferase) SARS-COV-2 Spike(LP.1) Pseudotyped Virus (GFP-Luciferase)S 蛋白假病毒

### 组成成分

组分编号	产品名称	储存	编号/规格		
			GM-0220PV189-96T	GM-0220PV189-480T	GM-0220PV189-960T
GM-100199LV	SARS-COV-2 Spike(LP.1) Pseudotyped Virus (GFP-Luciferase)	-80°C	50 μL/管*1 管	50 μL/管*5 管	50 μL/管*10 管
GM-100199LV-R20	SARS-COV-2 Spike(LP.1) Pseudotyped Virus (GFP-Luciferase)	-80°C	20 μL/管*1 管	20 μL/管*1 管	20 μL/管*1 管

## 二、包装、运输及储存

1. 假病毒产品干冰运输，-80°C储存。（保存时间以 12 个月以内为宜，如保存时间过长，使用前请重新检测病毒滴度）
2. 请收到产品立即确认产品是否为冻存状态，并立即存入-80°C冰箱。

## 三、原理描述

S 蛋白是冠状病毒最重要的表面膜蛋白，含有 S1 和 S2 两个亚基。其中 S1 包含受体结合域（receptorbinding domain, RBD），负责识别细胞的受体。S2 含有膜融合过程所需的基本元件。研究发现，S 蛋白介导受体结合和膜融合，对病毒感染宿主细胞起重要作用，此外，S 蛋白上含有刺激中和抗体的主要抗原及细胞毒性淋巴细胞的重要靶标，是疫苗设计、治疗性抗体和诊断方法的关键靶标(Walls et al., 2020; Wang et al., 2020; Zhang et al., 2020)。

为避免传统的 SARS-CoV-2 病毒中和试验需要操作活毒而存在的生物安全隐患，吉满生物建立了基于假病毒系统的操作较安全的 SARS-CoV-2 中和试验技术平台。本产品以 HIV 慢病毒载体和 SARS-CoV-2 S 蛋白为基础，将 SARS-CoV-2 S 蛋白替换慢病毒包膜蛋白 VSVG，与慢病毒包装质粒和 CMV-GFP-T2A-Luciferase 质粒共转染 293T 细胞，包装 SARS-CoV-2 S 假病毒，表面表达 SARS-CoV-2 S 蛋白，并且同时携带 GFP 荧光和 Luciferase 荧光素酶报告基因，可通过观察荧光和检测荧光素酶活性评价假病毒感染细胞的活性，该假病毒无自主复制能力，安全性高。

LP.1 氨基酸突变型假病毒可用于 LP.1 突变型的 SARS-CoV-2 受体药物筛选、中和抗体检测及疫苗效果评价等。

## 四、 产品简介

此假病毒产品是以 NCBI Reference Sequence: NC\_045512.2 中的 Spike 蛋白为假病毒刺突蛋白, 具体突变位点为 T19I、R21T、L24S、DEL25/27、DEL31/31、S50L、DEL69/70、V127F、G142D、DEL144/144、F157S、R158G、N211I、DEL212/212、V213G、L216F、H245N、A264D、I332V、G339H、R346T、K356T、S371F、S373P、S375F、T376A、R403K、D405N、R408S、K417N、N440K、V445H、G446S、N450D、L452W、L455S、F456L、N460K、S477N、T478K、N481K、DEL483/483、E484K、F486P、Q498R、N501Y、Y505H、E554K、A570V、D614G、P621S、H655Y、N679K、P681R、N764K、D796Y、S939F、Q954H、N969K、K1086R、V1104L、P1143L、M1229I, 并基于 HIV 慢病毒包装体系, 构建的将 GFP 绿色荧光和 Luciferase 萤火虫荧光素酶基因表达质粒包裹在内的具备感染 293T-ACE2 细胞能力的复制缺陷型假病毒, 可以通过荧光和 Luciferase 值的测定假病毒感染的能力。

## 五、 相关产品

SARS-CoV-2 Spike Pseudotyped Virus (可用于中和抗体筛选和评价)

货号	名称	规格
GM-0220PV07 -96T/480T/960T	SARS-CoV-2 Spike Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV10 -96T/480T/960T	SARS-CoV-2 Spike(R408I) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV11 -96T/480T/960T	SARS-CoV-2 Spike(N354D) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV12 -96T/480T/960T	SARS-CoV-2 Spike(V367F) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV13 -96T/480T/960T	SARS-CoV-2 Spike(N354D&D364Y)Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV14 -96T/480T/960T	SARS-CoV-2 Spike(D614G) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV15 -96T/480T/960T	SARS-CoV-2 Spike(D614G+I472V) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV16 -96T/480T/960T	SARS-CoV-2 Spike(D839Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV17 -96T/480T/960T	SARS-CoV-2 Spike(V483A) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV18 -96T/480T/960T	SARS-CoV-2 Spike(D614G+L5F) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV19 -96T/480T/960T	SARS-CoV-2 Spike(D614G+D936Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T

GM-0220PV20 -96T/480T/960T	SARS-CoV-2 Spike(L5F) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV21 -96T/480T/960T	SARS-CoV-2 Spike(L8V) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV22 -96T/480T/960T	SARS-CoV-2 Spike(L8W) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV23 -96T/480T/960T	SARS-CoV-2 Spike(G1124V) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV24 -96T/480T/960T	SARS-CoV-2 Spike(D614G+A831V) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV26 -96T/480T/960T	SARS-CoV-2 Spike(W436R) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV27 -96T/480T/960T	SARS-CoV-2 Spike(N331Q+N343Q) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV25 -96T/480T/960T	SARS-CoV-2 Spike(D614G+A879S) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV28 -96T/480T/960T	SARS-CoV-2 Spike(N501Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV29 -96T/480T/960T	SARS-CoV-2 Spike(N501Y+D614G) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV30 -96T/480T/960T	SARS-CoV-2 Spike(K417N) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV31 -96T/480T/960T	SARS-CoV-2 Spike(K417N+E484K +N501Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV32 -96T/480T/960T	SARS-CoV-2 Spike(B.1.351/501Y.V2) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV33 -96T/480T/960T	SARS-CoV-2 Spike(B.1.1.7/VUI- 202012/01,delta145Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV34 -96T/480T/960T	SARS-CoV-2 Spike(B..1.7/VUI- 202012/01,delta144Y/145Y) Pseudotyped	96T/480T/960T
GM-0220PV35 -96T/480T/960T	SARS-CoV-2 Spike(E484K) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV36 -96T/480T/960T	SARS-CoV-2 Spike(E484K+N501Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV37 -96T/480T/960T	SARS-COV-2 Spike(B.1.429 CAL.20C) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV38 -96T/480T/960T	SARS-COV-2 Spike(K417T+E484K+ N501Y) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T
GM-0220PV42 -96T/480T/960T	SARS-COV-2 Spike(L452R+E484Q) Pseudotyped Virus (GFP-Luciferase)	96T/480T/960T

GM-0220PV43	SARS-COV-2 Spike(B.1.617)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV44	SARS-COV-2 Spike(B.1.617.1)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV45	SARS-COV-2 Spike(B.1.617.2)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV47	SARS-COV-2 Spike(P.1 501Y.V3)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV50	SARS-COV-2 Spike(B.1.427+B.1.429)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV51	SARS-COV-2 Spike(Delta+)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV53	SARS-COV-2 Spike(Lambda)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV83	SARS-COV-2 Spike(B.1.621)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV84	SARS-COV-2 Spike(B.1.1.529)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV85	SARS-COV-2 Spike(B.1.640.2)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV86	SARS-COV-2 Spike(BA.2)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV87	SARS-COV-2 Spike(BA.1.1)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV88	SARS-COV-2 Spike(BA.2.9)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV90	SARS-COV-2 Spike(BA.5)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV92	SARS-COV-2 Spike(BA.3)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV93	SARS-COV-2 spike(BA.2.12.1)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV94	SARS-COV-2 S-Protein(Q493R)	96T/480T/960T
-96T/480T/960T	Pseudotype Virus(GFP-T2A-Luciferase)	
GM-0220PV97	SARS-COV-2 S-Protein(L452Q)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV98	SARS-COV-2 Spike(BA.4)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV99	SARS-COV-2 Spike(BA.2.75)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV100	SARS-COV-2 Spike(BF.7)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV101	SARS-COV-2 Spike(BA.2.76)	96T/480T/960T

-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
GM-0220PV102	SARS-COV-2 Spike(XBB)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV103	SARS-COV-2 Spike(BQ.1)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV104	SARS-COV-2 Spike(XBB.1)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV105	SARS-COV-2 Spike(BQ.1.1)Pseudotyped	96T/480T/960T
-96T/480T/960T	Virus (GFP-Luciferase)	
GM-0220PV106	SARS-COV-2 Spike(XBB.1.5)	96T/480T/960T
-96T/480T/960T	Pseudotyped Virus (GFP-Luciferase)	
中和抗体检测用细胞系		
货号	名称	规格
GM-C12968	H_ACE2 HEK-293T Cell Line	1 管 (5E6 Cell/mL)
GM-C09232	H_ACE2 CHO-K1 Cell Line	1 管 (5E6 Cell/mL)
GM-C07758	Vero E6 Cell Line	1 管 (5E6 Cell/mL)
SARS-CoV-2 abEN 假病毒 (可用做标准品)		
货号	名称	规格
GM-0220PV01-1	SARS-CoV-2 abEN 假病毒(SARS-CoV-2 abEN pseudovirus)	1 mL*1 管 (>1E8 Copy/mL)
GM-0220PV08-1	SARS-CoV-abEN 假病毒(SARS-CoV-abEN pseudovirus)	1 mL*1 管 (>1E8 Copy/mL)
GM-0220PV09-1	MERS-CoV-abEN 假病毒(MERS-CoV-abEN pseudovirus)	1 mL*1 管 (>1E8 Copy/mL)
其它新冠相关产品		
货号	名称	规格
GM-0220PV02-1	PGMLV-CMV-SARS-CoV-2 Spike-Luciferase Lentivirus	1E7 TU
GM-0220PV03-1	PGMLV-CMV-SARS-CoV-2 Spike-eGFP Lentivirus	1E7 TU
GM-0220PV04-1	PGMLV-CMV-H_ACE2-PGK-Puro Lentivirus	1E8 TU
GM-0220PV05-1	PGMLV-CMV-H_BSG(CD147)-PGK-Puro Lentivirus	1E8 TU
GM-0220PV06-1	PGMLV-CMV-SARS-COV-2 Spike-T2A-eGFP Lentivirus	1E7 TU

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