

**Product Name:** Remdesivir

**Catalog No.:** 7226

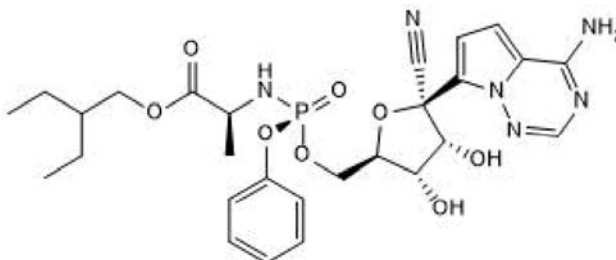
**Batch No.:** 2

CAS Number: 1809249-37-3

IUPAC Name: 2-Ethylbutyl (2S)-2-[[[(S)-[[[(2R,3S,4R,5R)-5-(4-aminopyrrolo(2,1-f)(1,2,4)triazin-7-yl)-5-cyano-3,4-dihydroxytetrahydrofuran-2-yl]methoxy]phenoxyphosphoryl]amino]propanoate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>27</sub> H <sub>35</sub> N <sub>6</sub> O <sub>8</sub> P.
<b>Batch Molecular Weight:</b>	602.58
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 100 mM ethanol to 20 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 100% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure
<b>Optical Rotation:</b>	[α] <sub>D</sub> = -20.7 (Concentration = 1, Solvent = Methanol)
<b>Microanalysis:</b>	

	Carbon	Hydrogen	Nitrogen
Theoretical	53.82	5.85	13.95
Found	53.78	5.85	14.02

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Remdesivir is a viral RNA-dependent RNA polymerase inhibitor (RdRp) and broad spectrum antiviral nucleotide prodrug. Metabolized to active form, GS 441524 (Cat. No. 7227). Exhibits activity against a range of RNA viruses *in vitro* (EC<sub>50</sub> values are 0.019, 0.07, 0.07 - 0.34, 0.086 - 0.14, and 23.15 μM against RSV, SARS-CoV, MERS-CoV, EBOV and SARS-CoV-2, respectively). Exhibits antiviral efficacy in animal models of MERS-CoV and EBOV infection.

**Physical and Chemical Properties:**

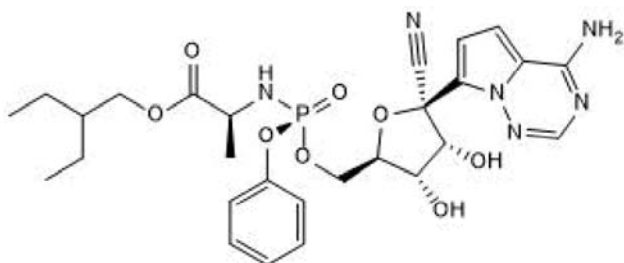
Batch Molecular Formula: C<sub>27</sub>H<sub>35</sub>N<sub>6</sub>O<sub>8</sub>P.

Batch Molecular Weight: 602.58

Physical Appearance: White solid

**Minimum Purity:** ≥98%

**Batch Molecular Structure:**



**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO to 100 mM

ethanol to 20 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

**Choy et al** (2020) Remdesivir, lopinavir, emetine, and homoharringtonine inhibit SARS-CoV-2 replication *in vitro*. *Antiviral Res.* **178** 104786. PMID: 32251767.

**Sheahan et al** (2020) Comparative therapeutic efficacy of remdesivir and combination lopinavir, ritonavir, and interferon beta against MERS-CoV. *Nat. Commun.* **11** 222. PMID: 31924756 .

**Warren et al** (2016) Therapeutic efficacy of the small molecule GS-5734 against Ebola virus in rhesus monkeys. *Nature* **531** 381. PMID: 26934220.

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