

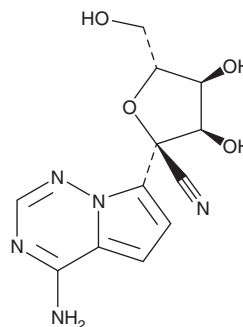
PRODUCT INFORMATION



GS-441524

Item No. 30469

CAS Registry No.: 1191237-69-0
Formal Name: 2-C-(4-aminopyrrolo[2,1-f][1,2,4]triazin-7-yl)-2,5-anhydro-D-altrnonitrile
MF: C₁₂H₁₃N₅O₄
FW: 291.3
Purity: ≥98%
UV/Vis.: λ_{max}: 247 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

GS-441524 is supplied as a solid. A stock solution may be made by dissolving the GS-441524 in the solvent of choice, which should be purged with an inert gas. GS-441524 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of GS-441524 in these solvents is approximately 10 mg/ml.

GS-441524 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, GS-441524 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. GS-441524 has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

GS-441524 is an antiviral nucleoside analog and a metabolite of remdesivir (Item No. 30354).¹ Upon entry into cells, GS-441524 is metabolized to an active triphosphate form that induces RNA chain termination and inhibits viral polymerases. It is active against Middle East respiratory syndrome coronavirus (MERS-CoV) and severe acute respiratory syndrome CoV (SARS-CoV) in infected primary human airway epithelial (HAE) cells (EC₅₀s = 0.86 and 0.18 μM, respectively). GS-441524 reduces viral plaque formation in SARS-CoV-2-infected Vero E6 and Calu-3 2B4 cells (EC₅₀s = 0.42 and 0.62 mM, respectively).² It is cytoprotective against hepatitis C virus (HCV), yellow fever virus (YFV), dengue virus type 2 (DENV-2), influenza A, and parainfluenza 3 in cell-based assays (EC₅₀s = 4.1, 11, 9.46, 27.9, and 1.71 μM, respectively).³

References

1. Agostini, M.L., Andres, E.L., Sims, A.C., *et al.* Coronavirus susceptibility to the antiviral remdesivir (GS-5734) is mediated by the viral polymerase and the proofreading exoribonuclease. *mBio* **9**(2), e00221-18 (2018).
2. Puijssers, A.J., George, A.S., Schäfer, A., *et al.* Remdesivir inhibits SARS-CoV-2 in human lung cells and chimeric SARS-CoV expressing the SARS-CoV-2 RNA polymerase in mice. *Cell Rep.* **32**(3), 107940 (2020).
3. Cho, A., Saunders, O.L., Butler, T., *et al.* Synthesis and antiviral activity of a series of 1'-substituted 4-aza-7,9-dideazaadenosine C-nucleosides. *Bioorg. Med. Chem.* **22**(8), 2705-2707 (2012).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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