

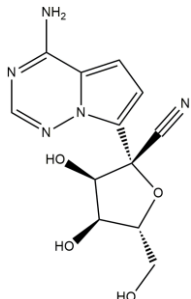
GS-441524

09/20

ALTERNATE NAMES: (2R,3R,4S,5R)-2-(4-aminopyrrolo[2,1-f][1,2,4]triazin-7-yl)-3,4-dihydroxy-5-(hydroxymethyl)oxolane-2-carbonitrile; (2R,3R,4S,5R)-2-(4-aminopyrrolo[2,1-f][1,2,4]triazin-7-yl)-3,4-dihydroxy-5-(hydroxymethyl)tetrahydrofuran-2-carbonitrile; EVO984; 2-C-(4-Aminopyrrolo(2,1-f)(1,2,4)triazin-7-yl)-2,5-anhydro-D-altronitrile; Remdesivir metabolite

CATALOG #: B3076-5 5 mg
B3076-25 25 mg

STRUCTURE:



MOLECULAR FORMULA: $C_{12}H_{13}N_5O_4$

MOLECULAR WEIGHT: 291.26

CAS NUMBER: 1191237-69-0

APPEARANCE: Off-white to light yellow solid powder

PURITY: >98%

SOLUBILITY: ~10 mg/ml in DMSO and DMF

DESCRIPTION: GS-441524 is the predominant metabolite of remdesivir in blood and is the nucleoside of the prodrug remdesivir. It is phosphorylated to the active triphosphate metabolite which incorporates into RNA. It shows broad spectrum activity in cell based assays against HCV, YFV, DENV-2, Influenza A, Parainfluenza 3 and SARS-CoV viruses with EC_{50} values ranging from 1.7 μ M-27.9 μ M. It inhibits SARS-CoV and MERS-CoV infected human airway epithelial cell cultures with EC_{50} values of 0.18 μ M and 0.86 μ M respectively. GS-441524 is suggested for the treatment of COVID-19 due to lower toxicity and simpler synthesis when compared to remdesivir.

STORAGE TEMPERATURE: -20°C. Store in the dark. Product is light sensitive. Protect from air. Store under desiccating conditions.

HANDLING: Do not take internally. Wear gloves and mask when handling the product! Avoid contact by all modes of exposure.

REFERENCES:

1. 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).
2. Yan, V.C., Muller, F.L. Advantages of the Parent Nucleoside GS-441524 over Remdesivir for Covid-19 Treatment. *ACS Med. Chem. Lett.* 11, 1361-1366 (2020).
3. 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 exonuclease. *mBio* 9(2), e00221-00218 (2018).

RELATED PRODUCTS:

Acyclovir (Cat. No. 2200)
Glecaprevir (Cat. No. B2347)
6-Azauridine (Cat. No. B1024)
Dexamethasone (Cat. No. 1042)
Remdesivir (Cat. no. B2997)

DISCLAIMER: *FOR RESEARCH USE ONLY! Not to be used on humans.*