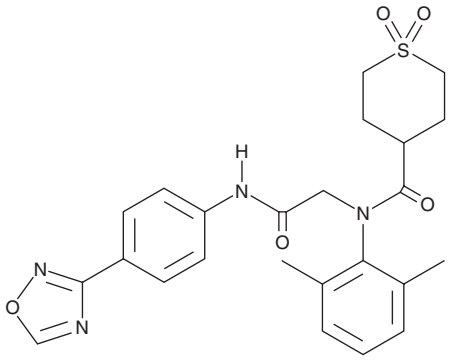
PRODUCT INFORMATION

Amenamevir

Item No. 27921

CAS Registry No.:	841301-32-4
Formal Name:	N-(2,6-dimethylphenyl)tetrahydro-N-[2-[[4-(1,2,4-oxadiazol-3-yl)phenyl]amino]-2-oxoethyl]-2H-thiopyran-4-carboxamide, 1,1-dioxide
Synonym:	ASP2151
MF:	$C_{24}H_{26}N_4O_5S$
FW:	482.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 275 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

Amenamevir is supplied as a solid. A stock solution may be made by dissolving the amenamevir in the solvent of choice, which should be purged with an inert gas. Amenamevir is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of amenamevir in these solvents is approximately 10 and 2 mg/ml, respectively. Amenamevir is also slightly soluble in ethanol.

Amenamevir is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, amenamevir should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Amenamevir has a solubility of approximately 0.04 mg/ml in a 1:20 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Amenamevir is an antiviral inhibitor of herpes simplex virus 1 (HSV-1) helicase-primase complex activity.[1] It inhibits recombinant HSV-1 helicase with an IC_{50} value of 0.078 µM and recombinant HSV-1 primase when used at concentrations greater than or equal to 0.03 µM. Amenamevir inhibits replication of varicella-zoster virus (VZV), HSV-1, and HSV-2 in human embryonic fibroblast (HEF) cells (EC_{50}s = 0.047, 0.036, and 0.028 µM, respectively) and is not cytotoxic to HEF cells with a 50% cytotoxic concentration (CC_{50}) of greater than 30 µM. Amenamevir also inhibits replication of clinical VZV isolates in HEF cells (EC_{50}s = 0.038-0.10 µM). *In vivo*, it increases survival of cutaneously HSV-1-infected mice in a zosteriform-spread model of progressive HSV-1 infection (ED_{50} = 1.9 mg/kg twice per day).

Reference

1. Chono, K., Katsumata, K., Kontani, T., *et al.* ASP2151, a novel helicase-primase inhibitor, possesses antiviral activity against varicella-zoster virus and herpes simplex virus types 1 and 2. *J. Antimicrob. Chemother.* **65(8)**, 1733-1741 (2010).

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