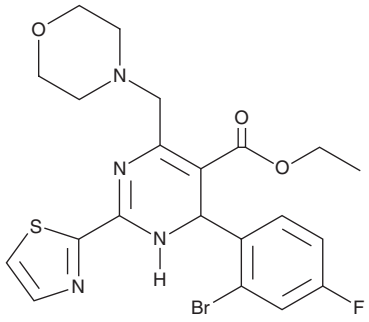
PRODUCT INFORMATION

GLS4

Item No. 35843

CAS Registry No.:	1092970-12-1
Formal Name:	4-(2-bromo-4-fluorophenyl)-1,4-dihydro-6-(4-morpholinylmethyl)-2-(2-thiazolyl)-5-pyrimidinecarboxylic acid, ethyl ester
Synonym:	Morphothiadin
MF:	$C_{21}H_{22}BrFN_4O_3S$
FW:	509.4
Purity:	≥98%
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

GLS4 is supplied as a solid. A stock solution may be made by dissolving the GLS4 in the solvent of choice, which should be purged with an inert gas. GLS4 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of GLS4 in these solvents is approximately 1 and 12 mg/ml, respectively. GLS4 is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of GLS4 can be prepared by directly dissolving the solid in aqueous buffers. The solubility of GLS4 in PBS (pH 7.2) is approximately 0.30 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

GLS4 is an antiviral agent.[1] It inhibits the replication of wild-type hepatitis B virus (HBV) and the drug-resistant HBV strains rtA181T, rtA181V, and rtN236T (IC_{50}s = 146, 145, 161, and 131 nM, respectively). GSL4 (1 and 10 µM) inhibits the formation of viral capsids and decreases viral core protein levels in HBV-infected HepG2 and HepG2.2.15 cells. It inhibits HBV replication and reduces the levels of viral intracellular core antigens in mice inoculated with HepAD38 cells, which carry and replicate HBV, when administered at doses ranging from 7.5 to 60 mg/kg.[2]

References

1. Wang, X.-Y., Wei, Z.-M., Wu, G.-Y., *et al. In vitro* inhibition of HBV replication by a novel compound, GLS4, and its efficacy against adefovir-dipivoxil-resistant HBV mutations. *Antivir. Ther.* **17(5),** 793-803 (2012).
2. Wu, G., Liu, B., Zhang, Y., *et al.* Preclinical characterization of GLS4, an inhibitor of hepatitis B virus core particle assembly. *Antimicrob. Agents Chemother.* **57(11),** 5344-5354 (2013).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM