

PRODUCT INFORMATION



BAY 57-1293-d₄
Item No. 9004311

Formal Name: N-[5-(aminosulfonyl)-4-methyl-2-thiazolyl]-N-methyl-4-(2-pyridinyl-d₄)-benzeneacetamide

Synonym: Pritelivir-d₄

MF: C₁₈H₁₄D₄N₄O₃S₂

FW: 406.5

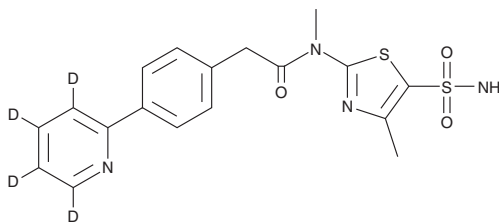
Chemical Purity: ≥95% (BAY 57-1293)

Deuterium Incorporation: ≥99% deuterated forms (d₁-d₄); ≤1% d₀

Supplied as: A solid

Storage: -20°C

Stability: ≥2 years



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

Laboratory Procedures

BAY 57-1293-d₄ is intended for use as an internal standard for the quantification of BAY 57-1293 (Item No. 22129) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

BAY 57-1293-d₄ is supplied as a solid. A stock solution may be made by dissolving the BAY 57-1293-d₄ in the solvent of choice, which should be purged with an inert gas. BAY 57-1293-d₄ is soluble in chloroform, methanol, and DMSO.

Description

BAY 57-1293 is an orally bioavailable helicase-primase inhibitor.¹ It inhibits the ATPase activity of herpes simplex virus (HSV) helicase-primase (IC₅₀ = 30 nM). It inhibits HSV replication in Vero cells (IC₅₀ = 20 nM for both HSV-1 and HSV-2) and is also active against porcine and bovine HSV strains (IC₅₀s = 5 and 0.12 μM, respectively). *In vivo*, oral administration of BAY 57-1293 is effective against HSV-1 and HSV-2 in a lethal challenge model (ED₅₀ = 0.5 mg/kg in mice and rats) and in a zosteriform spread model, at a dose of 15 mg/kg, in mice and Lewis rats.^{2,3} It is also effective in a guinea pig model of genital herpes and a mouse model of ocular herpes. BAY 57-1293 reduces levels of amyloid-beta (Aβ) and phosphorylated Tau in HSV-1 infected Vero cells.³

References

1. Klymann, G., Fischer, R., Betz, U.A., *et al.* New helicase-primase inhibitors as drug candidates for the treatment of herpes simplex disease. *Nat. Med.* **8(4)**, 392-398 (2002).
2. Betz, U.A., Fischer, R., Klymann, G., *et al.* Potent *in vivo* antiviral activity of the herpes simplex virus primase-helicase inhibitor BAY 57-1293. *Antimicrob. Agents Chemother.* **46(6)**, 1766-1772 (2002).
3. Wozniak, M.A., Frost, A.L., and Itzhaki, R.F. The helicase-primase inhibitor BAY 57-1293 reduces the Alzheimer's disease-related molecules induced by herpes simplex virus type 1. *Antiviral Res.* **99(3)**, 401-404 (2013).

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.

WARRANTY AND LIMITATION OF REMEDY

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