

PRODUCT INFORMATION

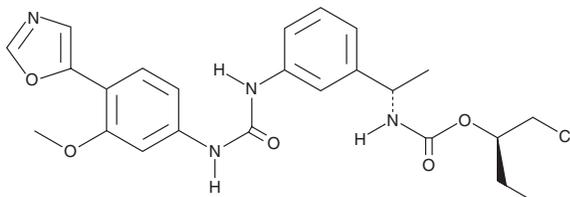


AVN-944

Item No. 21284

CAS Registry No.: 297730-17-7
Formal Name: N-[(1S)-1-[3-[[[3-methoxy-4-(5-oxazolyl)phenyl]amino]carbonyl]amino]phenyl]ethyl]-carbamic acid, (1R)-1-(cyanomethyl)propyl ester

MF: C₂₅H₂₇N₅O₅
FW: 477.5
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 286, 309 nm
Supplied as: A crystalline 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

AVN-944 is supplied as a crystalline solid. A stock solution may be made by dissolving the AVN-944 in the solvent of choice, which should be purged with an inert gas. AVN-944 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of AVN-944 in these solvents is approximately 30 mg/ml.

AVN-944 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AVN-944 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AVN-944 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

AVN-944 is a selective, noncompetitive inhibitor of inosine-5'-monophosphate dehydrogenase (IMPDH; K_i = 6-10 nM for both human IMPDH isoforms), a rate-limiting enzyme involved in the *de novo* synthesis of purine nucleotides.¹ Inhibition of IMPDH results in disruption of DNA and RNA synthesis, inhibition of cell proliferation, and the induction of apoptosis. AVN-944 has been shown to inhibit the proliferation of multiple myeloma cells *in vitro* by inducing caspase-independent apoptosis.¹ It is also reported to have antitumor properties in androgen-sensitive and androgen-independent prostate cancer cells *in vitro*.²

References

1. Ishitsuka, K., Hideshima, T., Hamasaki, M., *et al.* Novel inosine monophosphate dehydrogenase inhibitor VX-944 induces apoptosis in multiple myeloma cells primarily *via* caspase-independent AIF/Endo G pathway. *Oncogene* **24(38)**, 5888-5896 (2005).
2. Floryk, D. and Thompson, T.C. Antiproliferative effects of AVN944, a novel inosine 5-monophosphate dehydrogenase inhibitor, in prostate cancer cells. *Int. J. Cancer* **123(10)**, 2294-2302 (2008).

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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