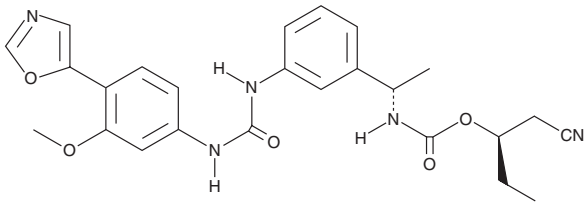
# PRODUCT INFORMATION

## AVN944

*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:** $C_{25}H_{27}N_5O_5$
**FW:** 477.5
**Purity:** ≥98%
**UV/Vis.:** $\lambda_{max}$: 229, 286, 309 nm
**Supplied as:** A crystalline solid
**Storage:** -20°C
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



### Laboratory Procedures

AVN944 is supplied as a crystalline solid. A stock solution may be made by dissolving the AVN944 in the solvent of choice. AVN944 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of AVN944 in these solvents is approximately 30 mg/ml.

AVN944 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, AVN944 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. AVN944 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

AVN944 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. AVN944 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).





**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