Efavirenz
Item No. 14412

CAS Registry No.: 154598-52-4
Formal Name: (4S)-6-chloro-4-(2-cyclopropylethynyl)-1,4-dihydro-4-(trifluoromethyl)-2H-3,1-benzoazin-2-one
Synonyms: DMP 266, EFV, L-743,726
MF: C14H9ClF3NO2
FW: 315.7
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis: λmax: 247, 294 nm

Laboratory Procedures
For long term storage, we suggest that efavirenz (EFV) be stored as supplied at -20°C. It should be stable for at least two years.

EFV is supplied as a crystalline solid. A stock solution may be made by dissolving the EFV in the solvent of choice. EFV is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of EFV in ethanol and DMF is approximately 20 mg/ml and approximately 14 mg/ml in DMSO.

EFV is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, EFV should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. EFV has a solubility of approximately 0.5 mg/ml in a 1:1 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Non-nucleoside reverse transcriptase inhibitors (NNRTIs) are highly specific and potent allosteric inhibitors of human immunodeficiency virus type 1 (HIV-1) reverse transcriptase. EFV is an NNRTI that prevents RNA plus-strand initiation with an IC50 value of 17 nM. EFV also inhibits the late stages of HIV-1 replication by interfering with HIV-1 Gag-Pol polyprotein processing. It has been used in combination therapy with drugs directed at the treatment of opportunistic infections such as HIV and cancer.3,4

References
4. Rakhmanina, N.Y. and van den Anker, J.N. Efavirenz in the therapy of HIV infection. Expert Opin. Drug Metab. Toxicol. 6(1), 95-103 (2010).

Related Products
For a list of related products please visit: www.caymanchem.com/catalog/14412

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent to the institution.

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