



CERTIFICATE OF ANALYSIS

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1. Identification

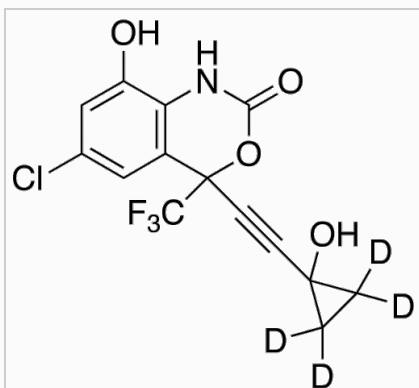
Catalogue Number: D452802

CAS Number: 1189859-26-4

Product: rac 8,14-Dihydroxy Efavirenz-d4

Synonym: 6-Chloro-1,4-dihydro-8-hydroxy-4-[(1-hydroxycyclopropyl-d4)ethynyl]-4-(trifluoromethyl)-2H-3,1-benzoxazin-2-one;

Structure:



Molecular Formula:

C₁₄H₅D₄ClF₃NO₄

Molecular weight:

351.7

Source of Product:

Synthetic

Solubility:

Acetonitrile (Slightly),
Methanol (Slightly)

Lot Number: 5-GBH-85-1

Purity: Chemical Purity: 97% Isotopic Purity: 99.2%

Shipping Condition: This Product Is Stable To Be Shipped At Room Temperature

Storage Condition: -20°C

2. Warning

Warning 1:

Warning 2:

Warning 3:

3. Analytical Information

Tests:	Specifications:	Results:
Appearance	White to Off-White Solid	White to Off-White Solid
Melting Point	>180°C	>190°C (dec.)
H NMR	Conforms to structure	Conforms
F NMR	Conforms to structure	Conforms
Elemental Analysis	Conforms	%C: 47.74, %H: 2.60, %N: 3.93
MS	Conforms to structure	Conforms
Isotopic Purity	>95%	99.2%
HPLC Purity	>95%	97.28%

Additional Information:

TLC Conditions: SiO₂; Ethyl Acetate : Hexanes = 1 : 1; Visualized with UV and KMnO₄; Single Spot, R_f = 0.40. ¹H NMR, ¹⁹F NMR and MS conform to structure. Elemental Analysis: (Found) %C: 47.74, %H: 2.60, %N: 3.93; (Calculated) %C: 47.81, %H: 2.58, %N: 3.98. Normalized Intensity: d₀ = 0.00%, d₁ = 0.03%, d₂ = 0.06%, d₃ = 2.84%, d₄ = 97.07%

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of ± 2%. Isotopic purity is based on mass distribution observed. The contents of the specifications are subject to change without advance notice, and the specification values displayed here are the most up to date values.

4. Signatures

Reviewed By	Reviewed By	C of A Approved By	Test Date	Retest Date
Rhonda Tu	Eric Beaton		8/15/2018	8/13/2028
				