



CERTIFICATE OF ANALYSIS

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1. Identification

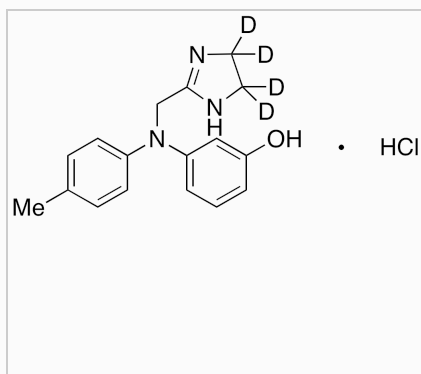
Catalogue Number: P302552

CAS Number: 1346599-65-2

Product: Phentolamine-d4 Hydrochloride

Synonym: 2-[N-(m-Hydroxyphenyl)-p-toluidinomethyl]imidazoline-d4 Hydrochloride; 3-[[[(4,5-Dihydro-1H-imidazol-2-yl)methyl](4-methylphenyl)amino]phenol-d4 Hydrochloride; DNP-d4; Regitine-d4 Hydrochloride;

Structure:



Molecular Formula:

$C_{17}H_{15}D_4N_3O \cdot HCl$

Molecular weight:

285.38 + 36.46

Source of Product:

Synthetic

Solubility:

DMSO (Slightly), Methanol (Slightly)

Lot Number: 12-XAL-65-2

Purity: 98%

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	Pale Brown to Light Brown Solid	Pale Brown to Light Brown Solid
NMR	Conforms to Structure	Conforms
HPLC Purity	Report Result	99.09% (210 nm)
Elemental Analysis	Conforms	%C: 62.78, %H: 6.29, %N: 12.83
MS	Conforms to Structure	Conforms
Isotopic Purity	>95%	98.9%

Additional Information:

Normalized Intensity: d0 = 0.01%, d1 = 0.00%, d2 = 0.05%, d3 = 4.15%, d4 = 95.79%

Purity is based on the analytical results of the tests performed. NMR and Elemental Analysis (if available) may have an accuracy of $\pm 2\%$. 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
Meenakshi Sharma	Toni Rantanen	Chanell Chu	1/2/2024	12/31/2027