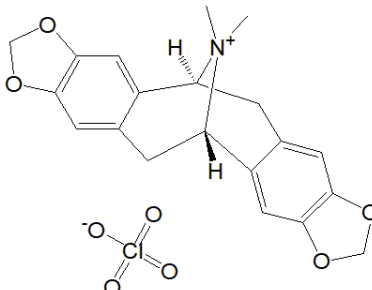


# Certificate of Analysis



<b>PRODUCT</b>	<b>Californidine perchlorate</b>
<b>BATCH #</b>	047-086-500
<b>ASSAY METHOD</b>	HPLC
<b>REPORT DATE</b>	2022-10-05
<b>CHEMICAL NAME</b>	Californidine perchlorate
<b>SMILES STRUCTURE</b>	C[N+](C)(C)C1=CC=C(C=C1)C2=CC(OC)=C(OC)C=C2.[O-]Cl(=O)(=O)=O
<b>OTHER NAMES</b>	23,23-dimethyl-5,7,16,18-tetraoxa-23-azoniahexacyclo[10.10.1.02,10.04,8.013,21.015,19]tricoso-2,4(8),9,13,15(19),20-hexaene;perchlorate
<b>CHEMICAL FORMULA</b>	C <sub>20</sub> H <sub>20</sub> ClNO <sub>8</sub>
<b>MOLECULAR WEIGHT</b>	437.8
<b>CAS REG. #</b>	17939-31-0
<b>STORAGE</b>	<-5 degrees C; dark
<b>EXPIRATION DATE</b>	2025-10-05
<b>NOTES</b>	Californidine free ion mw: 338.3

## Analytical Data

TEST	METHOD	SPECIFICATION	RESULT
HPLC	210 nm	>95%	99.99%
MS	Perkin Elmer PE-SCIEX API-150	338.1	338.0
1H NMR	Avance 500	Conforms	Conforms
13C NMR	Avance 500	Conforms	Conforms
Residual Solvent	Headspace GC-FID		LOQ
Residual Water	Karl Fischer		LOQ
Ion Analysis	ICP-MS		LOQ
Appearance	White crystalline solid		

 Signed: Vitold Glinski  
 Planta Analytica, LLC  
 10/5/2022

