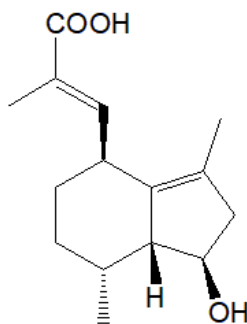


Certificate of Analysis



<i>PRODUCT</i>	<i>Hydroxyvalerenic Acid</i>
<i>BATCH #</i>	PA-038-045-301
<i>ASSAY METHOD</i>	HPLC, ¹ HNMR
<i>REPORT DATE</i>	2018-01-08
<i>CHEMICAL NAME</i>	2-Hydroxy-4,7-valerenadien-12-oic acid
<i>OTHER NAMES</i>	2-Hydroxyvalerenic acid, valerenolic acid
<i>CHEMICAL FORMULA</i>	C ₁₅ H ₂₂ O ₃
<i>MOLECULAR WEIGHT</i>	250.35
<i>CAS REG. #</i>	1619-16-5
<i>STORAGE</i>	<-5 degrees C; dark
<i>EXPIRATION DATE</i>	2021-01-08
<i>NOTES</i>	Add additional notes.

Analytical Data

TEST	METHOD	SPECIFICATION	RESULT
HPLC	210 nm	>95%	100%
¹ H-NMR		Conforms	Conforms
Residual Solvents		<0.2%	
Appearance	White crystalline solid		

Signed: Jan Glinski, Ph.D.
 Planta Analytica LLC
 January 8, 2018

