

CERTIFICATE OF ANALYSIS

Sample Name: CBDA 3x
 Steep Hill ID: BK69702
 Batch ID:
 Sample Type: Oil
 Date Received: 7/1/2019
 Pkg. Volume: 30 mL
 # of Servings: 30
 Density: 0.9211 g/mL

Customer: Circle Labs

Terpenoid Results - Extended Terpenes

7/8/2019

Extended terpene analysis utilizing Gas Chromatography – Mass Spectrometry (GC-MS; SOP-069)

Analyte	%	mg/g	mg/mL	LOD mg/g	LOQ mg/g	Analyte	%	mg/g	mg/mL	LOD mg/g	LOQ mg/g
α-Bisabolol	0.034	0.34	0.31	0.075	0.25	Linalool	< LOQ	< LOQ	< LOQ	0.076	0.25
endo-Borneol	< LOQ	< LOQ	< LOQ	0.0120	0.040	Menthol	ND	ND	ND	0.0089	0.029
Camphene	ND	ND	ND	0.0089	0.029	β-Myrcene	0.152	1.52	1.40	0.0089	0.029
Camphor	ND	ND	ND	0.0089	0.029	Nerol	ND	ND	ND	0.075	0.25
3-Carene	ND	ND	ND	0.0089	0.029	cis-Nerolidol	ND	ND	ND	0.075	0.25
Caryophyllene Oxide	0.0142	0.142	0.131	0.0089	0.029	trans-Nerolidol	0.023	0.23	0.21	0.0122	0.040
β-Caryophyllene	0.087	0.87	0.80	0.0089	0.029	cis-β-Ocimene	< LOQ	< LOQ	< LOQ	0.050	0.164
α-Cedrene	ND	ND	ND	0.0120	0.040	trans-β-Ocimene	< LOQ	< LOQ	< LOQ	0.022	0.072
Cedrol	ND	ND	ND	0.0089	0.029	α-Phellandrene	ND	ND	ND	0.0089	0.029
Citronellol	ND	ND	ND	0.076	0.25	Phytol 1	ND	ND	ND	0.024	0.079
Eucalyptol	ND	ND	ND	0.0089	0.029	Phytol 2	0.022	0.22	0.20	0.051	0.169
α-Farnesene	ND	ND	ND	0.029	0.097	α-Pinene	0.0185	0.185	0.170	0.0120	0.040
β-Farnesene	0.043	0.43	0.40	0.046	0.150	β-Pinene	0.0074	0.074	0.069	0.0120	0.040
Fenchol	< LOQ	< LOQ	< LOQ	0.0122	0.040	Pulegone	ND	ND	ND	0.074	0.24
Fenchone	ND	ND	ND	0.0122	0.040	Sabinene	ND	ND	ND	0.0122	0.040
Geraniol	ND	ND	ND	0.162	0.54	Sabinene Hydrate	< LOQ	< LOQ	< LOQ	0.0120	0.040
Geranyl Acetate	ND	ND	ND	0.075	0.25	α-Terpinene	ND	ND	ND	0.0120	0.040
Guaiol	0.0112	0.112	0.103	0.0122	0.040	γ-Terpinene	< LOQ	< LOQ	< LOQ	0.0122	0.040
α-Humulene	0.035	0.35	0.32	0.0122	0.040	α-Terpineol	0.0069	0.069	0.063	0.0120	0.040
Isoborneol	ND	ND	ND	0.0089	0.029	Terpinolene	ND	ND	ND	0.0120	0.040
Isopulegol	ND	ND	ND	0.0089	0.029	Valencene	ND	ND	ND	0.0089	0.029
Limonene	0.020	0.20	0.188	0.0120	0.040	Total	0.47	4.7	4.4		

ND: Not Detected NT: Not Tested LOQ: Limit of Quantitation LOD: Limit of Detection



Amy Goodwin, Ph.D.
 Laboratory Director
 Date: 7/9/2019

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