PharmLabs San Diego Certificate of Analysis

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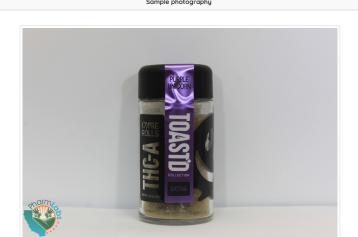
Laboratory note: The estimated concentration of the unknown peak in the sample is 0.2% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or 49-THC. At this time there are no reference standards available for (+)d8-THC is o different compound from the main (-)d8-THC cannobinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be 1.60%

CANX - Cannabinoids Analysis

Analyzed Jul 31, 2023 | Instrument HPLC-VWD | Method

The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathcal{I}\$.81% at the 95% Confidence Level

The expanded Uncertainty of the Cannabinoid analysis is approximately 4.81% at the 9	5% Cont	idence L	.evei	
Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-Δ8-Tetrahydrocannabivarin (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THC)	0.007	0.021	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	0.10	1.02
Cannabigerol Acid (CBGA)	0.001	0.16	11.00	109.98
Cannabigerol (CBG)	0.001	0.16	1.24	12.44
Cannabidiol (CBD)	0.001	0.16	0.08	0.75
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	8.32	83.24
(6αR,9S)-Δ10-Tetrahydrocannabinol ((6αR,9S)-Δ10)	0.015	0.16	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	5.67	56.73
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ 9-Tetrahydrocannabiphorol (Δ 9-THCP)	0.017	0.16	ND	ND
$\Delta 8$ -Tetrahydrocannabiphorol ($\Delta 8$ -THCP)	0.041	0.16	0.67	6.72
Cannabicitran (CBT)	0.005	0.16	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
Δ 9-THC-O-acetate (Δ 9-THCO)	0.066	0.16	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND
3-octyl-∆8-Tetrahydrocannabinol (∆8-THC-C8)	0.067	0.204	ND	ND
Total THC (THCa * 0.877 + Δ9THC)			4.97	49.72
Total THC + Δ 8THC + Δ 10THC (THCa * 0.877 + Δ 9THC + Δ 8THC + Δ 10THC)			13.29	132.96
Total CBD (CBDa * 0.877 + CBD)			0.16	1.64
Total CBG (CBGa * 0.877 + CBG)			10.89	108.89
Total HHC (9r-HHC+9s-HHC)			ND	ND
Total Cannabinoids			29.31	293.21



*Dry Weight %

MWA - Moisture Content & Water Activity Analysis

Analyzed 301 26, 2025 Illistratifier Chillied-militar Dewpoint and Capacitance Method 507-006						
Analyte	Result	Limit	Analyte	Result	Limit	
Moisture (Moi)	8.4 % Mw	13 % Mw	Water Activity (WA)	0.58 a _w	0.85 a _w	

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
-(LOQ Detected VLOLA base vaper limit of linearity
CEVI/Q Colony Forming Units per 1 gram
TNTC Too Numerous to Count









Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager Mon, 31 Jul 2023 15:47:17 -0700



PharmLabs San Diego Certificate of Analysis

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Laboratory note: The estimated concentration of the unknown peak in the sample is 0.27% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or 49-THC. At this time there are no reference standards available for (+)d8-THC is o different compound from the main (-)d8-THC cannobinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be 2.12%

CANX - Cannabinoids Analysis

Analyzed Jul 31, 2023 | Instrument HPLC-VWD | Method

The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathcal{I}\$.81% at the 95% Confidence Level

The expanded officer taining of the carmabilion analysis is approximately 2 for a	, 5 , 5 , 6 6 6 1 11	idelice i		
Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-Δ8-Tetrahydrocannabivarin (11-Hyd-Δ8-THCV)	0.013	0.041	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THC)	0.007	0.021	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	0.10	1.00
Cannabigerol Acid (CBGA)	0.001	0.16	11.59	115.92
Cannabigerol (CBG)	0.001	0.16	1.38	13.80
Cannabidiol (CBD)	0.001	0.16	0.08	0.84
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	8.1	81.00
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	10.24	102.4
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	ND	ND
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	0.69	6.91
Cannabicitran (CBT)	0.005	0.16	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND
Total THC (THCa * 0.877 + Δ9THC)			8.98	89.80
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ8THC + Δ10THC)			17.00	170.0
Total CBD (CBDa*0.877 + CBD)			0.17	1.72
Total CBG (CBGa * 0.877 + CBG)			11.55	115.46
Total HHC (9r-HHC + 9s-HHC)			ND	ND
Total Cannabinoids			37.70	376.98



*Dry Weight %

MWA - Moisture Content & Water Activity Analysis

Analyzed Jul 26, 2025 Instrument Chilled-Initrol Dewpoint and Capacitance Method Sor-506						
Analyte	Result	Limit	Analyte	Result	Limit	
Moisture (Moi)	8.6 % Mw	13 % Mw	Water Activity (WA)	0.59 a _w	0.85 a _w	

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
-(LOQ Detected VLOLA base vaper limit of linearity
CEVI/Q Colony Forming Units per 1 gram
TNTC Too Numerous to Count









Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager Mon, 31 Jul 2023 15:48:04 -0700



PharmLabs San Diego Certificate of Analysis

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sample Half Bak'd THC-A Pre Rolls - Bubba's Girl



Laboratory note: The estimated concentration of the unknown peak in the sample is 0.26% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or 49-THC. At this time there are no reference standards available for (+)d8-THC is o different compound from the main (-)d8-THC cannobinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be : 200%

CANX - Cannabinoids Analysis

Analyzed Jul 31, 2023 | Instrument HPLC-VWD | Method

The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathcal{I}\$.81% at the 95% Confidence Level

Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-∆8-Tetrahydrocannabivarin (11-Hyd-∆8-THCV)	0.013	0.041	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND
11-Hydroxy-∆8-Tetrahydrocannabinol (11-Hyd-∆8-THC)	0.007	0.021	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	1.20	12.02
Cannabigerol Acid (CBGA)	0.001	0.16	8.90	89.02
Cannabigerol (CBG)	0.001	0.16	1.06	10.57
Cannabidiol (CBD)	0.001	0.16	0.84	8.36
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	7.39	73.93
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	6.79	67.89
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	ND	ND
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	0.5	4.87
Cannabicitran (CBT)	0.005	0.16	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND
Total THC (THCa * 0.877 + \Delta 9THC)			5.95	59.55
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ8THC + Δ10THC)			13.34	133.48
Total CBD (CBDa * 0.877 + CBD)			1.89	18.90
Total CBG (CBGa * 0.877 + CBG)			8.86	88.64
Total HHC (9r-HHC + 9s-HHC)			ND	ND
Total Cannabinoids			30.04	300.57
			30.04	500.57





*Dry Weight %

MWA - Moisture Content & Water Activity Analysis

Analyzed 301 26, 2025 Illistratified thillied						
Analyte	Result	Limit	Analyte	Result	Limit	
Moisture (Moi)	8.1 % Mw	13 % Mw	Water Activity (WA)	0.57 α _w	0.85 a _w	

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
-(LOQ Detected VLOLA base vaper limit of linearity
CEVI/Q Colony Forming Units per 1 gram
TNTC Too Numerous to Count









Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager Mon, 31 Jul 2023 15:50:25 -0700



PharmLabs San Diego Certificate of Analysis

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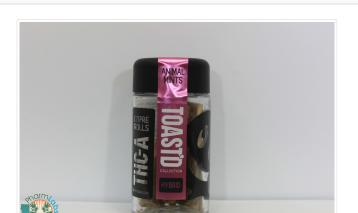
Laboratory note: The estimated concentration of the unknown peak in the sample is 0.41% | Currently PharmLabs laboratory can not confirm an unidentified peak in your chromatogram due to interference (only with highly concentrated D8 products) from which we believe to be either (+)d8-THC or 49-THC. At this time there are no reference standards available for (+)d8-THC is o different compound from the main (-)d8-THC cannobinoid and, therefore, these two compounds may have different efficacies. Using the most advanced instruments and techniques available, the separation of (+)d8-THC and d9-THC is problematic for the scientific community as a whole. PharmLabs believes the unidentified peak to be a combination of (+)d8-THC with the majority, if not all, of the concentration being (+)d8-THC. Total (+/-) D8 Concentration is estimated to be 2.65%

CANX - Cannabinoids Analysis

Analyzed Jul 31, 2023 | Instrument HPLC-VWD | Method

The expanded Uncertainty of the Cannabinoid analysis is approximately \$\mathcal{I}\$.81% at the 95% Confidence Level

The expanded officer taining of the Carmabillola analysis is approximately 3.81% a	it the 93% Con	lidelice	Level	
Analyte	LOD mg/g	LOQ mg/g	Result %	Result mg/g
11-Hydroxy-∆8-Tetrahydrocannabivarin (11-Hyd-∆8-THCV)	0.013	0.041	ND	ND
Cannabidiorcin (CBDO)	0.002	0.007	ND	ND
Abnormal Cannabidiorcin (a-CBDO)	0.01	0.031	ND	ND
(+/-)-9B-hydroxy-Hexahydrocannibinol (9b-HHC)	0.012	0.036	ND	ND
11-Hydroxy-Δ8-Tetrahydrocannabinol (11-Hyd-Δ8-THC)	0.007	0.021	ND	ND
Cannabidiolic Acid (CBDA)	0.001	0.16	3.49	34.93
Cannabigerol Acid (CBGA)	0.001	0.16	5.87	58.66
Cannabigerol (CBG)	0.001	0.16	0.79	7.88
Cannabidiol (CBD)	0.001	0.16	2.72	27.18
1(S)-THD (s-THD)	0.013	0.041	ND	ND
1(R)-THD (r-THD)	0.025	0.075	ND	ND
Tetrahydrocannabivarin (THCV)	0.001	0.16	ND	ND
Δ8-tetrahydrocannabivarin (Δ8-THCV)	0.021	0.064	ND	ND
Cannabidihexol (CBDH)	0.005	0.16	ND	ND
Tetrahydrocannabutol (Δ9-THCB)	0.013	0.038	ND	ND
Cannabinol (CBN)	0.001	0.16	ND	ND
Cannabidiphorol (CBDP)	0.015	0.047	ND	ND
exo-THC (exo-THC)	0.005	0.16	ND	ND
Tetrahydrocannabinol (Δ9-THC)	0.003	0.16	UI	UI
Δ8-tetrahydrocannabinol (Δ8-THC)	0.004	0.16	7.86	78.58
(6aR,9S)-Δ10-Tetrahydrocannabinol ((6aR,9S)-Δ10)	0.015	0.16	ND	ND
Hexahydrocannabinol (S Isomer) (9s-HHC)	0.017	0.16	ND	ND
(6aR,9R)-Δ10-Tetrahydrocannabinol ((6aR,9R)-Δ10)	0.007	0.16	ND	ND
Hexahydrocannabinol (R Isomer) (9r-HHC)	0.016	0.16	ND	ND
Tetrahydrocannabinolic Acid (THCA)	0.001	0.16	10.14	101.43
Δ9-Tetrahydrocannabihexol (Δ9-THCH)	0.024	0.071	ND	ND
Cannabinol Acetate (CBNO)	0.014	0.043	ND	ND
Δ9-Tetrahydrocannabiphorol (Δ9-THCP)	0.017	0.16	ND	ND
Δ8-Tetrahydrocannabiphorol (Δ8-THCP)	0.041	0.16	0.4	3.96
Cannabicitran (CBT)	0.005	0.16	ND	ND
Δ8-THC-O-acetate (Δ8-THCO)	0.076	0.16	ND	ND
9(S)-HHCP (s-HHCP)	0.031	0.094	ND	ND
Δ9-THC-O-acetate (Δ9-THCO)	0.066	0.16	ND	ND
9(R)-HHCP (r-HHCP)	0.026	0.079	ND	ND
9(S)-HHC-O-acetate (s-HHCO)	0.005	0.16	ND	ND
9(R)-HHC-O-acetate (r-HHCO)	0.008	0.025	ND	ND
3-octyl-Δ8-Tetrahydrocannabinol (Δ8-THC-C8)	0.067	0.204	ND	ND
Total THC (THCa * 0.877 + \Delta 9THC)			8.89	88.93
Total THC + Δ8THC + Δ10THC (THCa * 0.877 + Δ9THC + Δ8THC + Δ10THC)			16.75	167.51
Total CBD (CBDa * 0.877 + CBD)			5.78	57.81
Total CBG (CBGa * 0.877 + CBG)			5.93	59.32
Total HHC (9r-HHC + 9s-HHC)			ND	ND
Total Cannabinoids			37.35	373.57



*Dry Weight %

MWA - Moisture Content & Water Activity Analysis

Analyzed 301 26, 2025 Instrument chilled-initrol bewpoint and capacitance Method 507-006						
Analyte	Result	Limit	Analyte	Result	Limit	
Moisture (Moi)	8.3 % Mw	13 % Mw	Water Activity (WA)	0.58 a _w	0.85 a _w	

UI Unidentified
ND Not Detected
N/A Not Applicable
NT Not Reported
LOD Limit of Detection
LOQ Limit of Quantification
-(LOQ Detected VLOLA base vaper limit of linearity
CEVI/Q Colony Forming Units per 1 gram
TNTC Too Numerous to Count









Authorized Signature

Brandon Starr

Brandon Starr, Lab Manager Mon, 31 Jul 2023 15:49:16 -0700

