

CTInstruments` Hemp & Cannabis HPLC Analyzer

Technical Datasheet

Accurate, reliable, professional high-performance liquid chromatography instrument designed for determination of cannabinoids in hemp and cannabis biomass and products. Manufactured by an award-winning provider of cannabinoids testing solutions.

HPLC Features

- Reciprocating Pump
- Rheodyne 7725i Injector
- CTI HPLC Software
- UV/VIS Detector
- Temperature-controlled Column Compartment
- Cannabinoids Test Methods

HPLC Specifications

Flow Rate	0.001 - 5mL/min
Max Pressure	6,300 psi
Flow Accuracy	≤±1%
Flow Precision	RSD <0.1%
Qualitative Repeatability	RSD ≤0.2% (Naphthalene/ Methanol standards)
Quantitative Repeatability	RSD ≤0.5% (Naphthalene/ Methanol standards)
Wavelength Range	180 - 680nm
Spectrum Bandwidth	8nm
Wavelength Accuracy	±1nm
Wavelength Precision	Below 0.1nm
Noise	≤0.25X10 ⁻⁵ AU

HPLC Column Specifications

Column Type	C18, SS body
Dimensions	150x4.6mm
Packing	5µm particles
Guard Column	C18



**2020 COMMERCIAL
CANNABIS AWARDS
WINNER**

Best Cannabinoids
Potency Testing
Solutions Manufacturer -
North America



cannabishplcanalyzer.com

FEATURES

11 Cannabinoids Measured with Low Limit of Quantification

		Biomass	High % Concentrate	Edibles
THCV	Tetrahydrocannabivarin	0.03%	0.04%	0.01%
$\Delta 8$ -THC	(-)- $\Delta 8$ -THC	0.03%	0.06%	0.01%
$\Delta 9$ -THC	(-)- $\Delta 9$ -THC	0.03%	0.06%	0.01%
$\Delta 9$ -THCA-A	(-)-trans- $\Delta 9$ -THC acid A	0.03%	0.04%	0.01%
CBD	Cannabidiol	0.03%	0.03%	0.01%
CBDA	Cannabidiolic acid	0.03%	0.03%	0.01%
CBDV	Cannabidivarin	0.03%	0.03%	0.01%
CBG	Cannabigerol	0.03%	0.03%	0.01%
CBGA	Cannabigerolic acid	0.03%	0.03%	0.01%
CBN	Cannabinol	0.03%	0.03%	0.01%
CBC	(+/-) Cannabichromene	0.03%	0.05%	0.01%

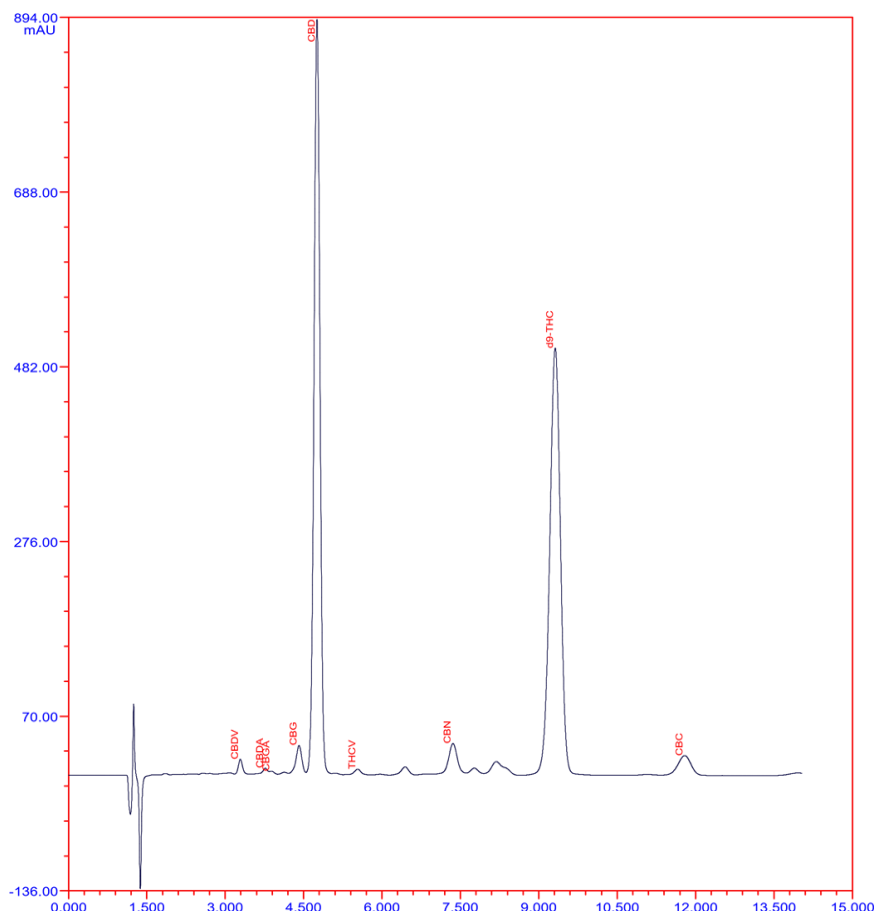
Sample Preparation Protocols and Test Methods Optimized for All Types of Samples

Types of Samples Analyzed

Beverages	Hash
Biomass	Kief
Concentrates	Live Rosin
Diamonds	Oils
Edibles	Rosin
Extracts	Shatter
Flower	Tinctures

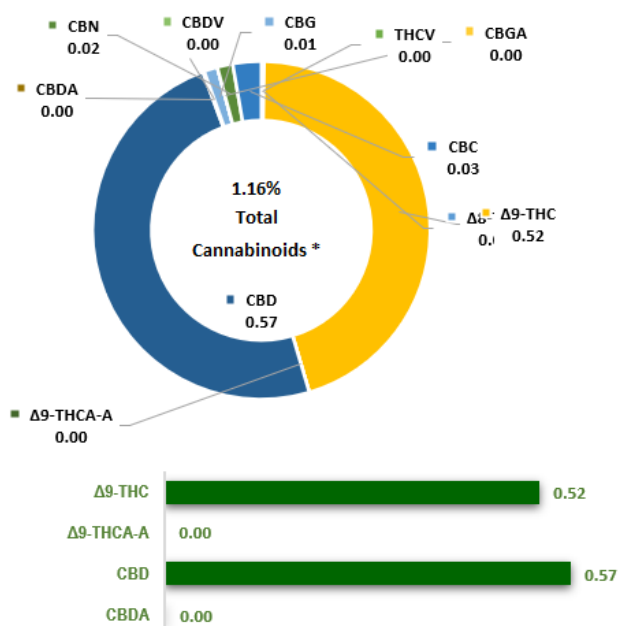
Included

Peak Auto Detection	Sample Preparation Protocols
Proven, tested, and validated test methods	Standard Operating Procedure (SOP)
Calibration curves	Customizable Reporting System
Calibration log	Easy-to-follow Instructions
Sample receiving log	Manual
Customer log	Training
Maintenance log	Technical Support



Easy-to-generate Highly Customizable Reports

CANNABINOID PROFILE



Compound		Result (% w/w)	mg/mL of sample
THCV	Tetrahydrocannabivarin	0.00	0.03
Δ8-THC	(-)-Δ8-THC	NR	NR
Δ9-THC	(-)-Δ9-THC	0.52	4.97
Δ9-THCA-A	(-)-trans-Δ9-THC acid A	NR	NR
CBD	Cannabidiol	0.57	5.38
CBDA	Cannabidiolic acid	0.00	0.02
CBDV	Cannabidivarin	<0	<0
CBG	Cannabigerol	0.01	0.14
CBGA	Cannabigerolic acid	<0	<0
CBN	Cannabinol	0.02	0.16
CBC	(+/-) Cannabichromene	0.03	0.30
Total Cannabinoids *		1.16	11.00
Total Potential THC		0.52	4.97
Total Potential CBD		0.57	5.40
Total Potential CBG		0.01	0.14

Results

	Manufacturer's Values	Measured Values
Total THC per Unit	4.93 mg/mL	4.97 mg/mL
Total CBD per Unit	4.98 mg/mL	5.40 mg/mL

Lower Limit of Quantification (LLOQ)

The lower limit of quantification (LLOQ) is the lowest amount of a cannabinoid in a sample that can be quantitatively determined with suitable precision and accuracy using the corresponding method and dilution rates. All values below this threshold are reported as NR - None Reported.

Compound	LLOQ (% w/w)
THCV	0.01
Δ8-THC	0.01
Δ9-THC	0.01
Δ9-THCA-A	0.01
CBD	0.01
CBDA	0.01
CBDV	0.01
CBG	0.01
CBGA	0.01
CBN	0.01
CBC	0.01

Instrument Calibration & Quality Control

Date of Quality Control	Standard	Standard Concentration (ug/mL)	Measured Concentration (ug/mL)	Delta (%)	PASS/FAIL	Notes
11-Apr-21	Benzoic acid	1002.9	1013.0	1.0%	PASS	
11-Apr-21	CBD	100.5	100.7	0.2%	PASS	