CANNALYTICS

Cannabinoid Analysis Test

Laboratory Protocol Manual

THC
CBD
CBN
THCV
CBG
CBC

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WARNINGS:

1. Do not inhale, drink or ingest any of the kit components.
2. Do not leave any chemicals unattended.
3. Always wear nitrile gloves when handling chemicals.
4. Only perform tests in very well-ventilated area, or under a carbon filter fume hood.
5. Prepare some paper towels to use as an absorbent in case of a spill.
6. If the test fluids are spilled put some paper towel on the spill and immediately leave the room and allow the room to ventilate until there is no detectable odor. Use nitrite gloves during the cleanup.
7. Store kit in a cool dark place.
8. Store the test fluids in a cool dark place. If left in a heated area and the test fluids may be destroyed, and will need to be disposed of properly.
9. Keep the test plates in a dry environment away from moisture at room temperature.

WARNING:

This kit contains 2 chemicals that require specific handling. When handling chemicals always wear a pair of nitrile gloves. It is also recommended to wear **protective eye** wear and **face mask** whenever handling chemicals. These chemicals have a limited shelf life. Please use before two years from manufacturing date on bottom.

Recommendations
Keep all kit components away from children and animals. Test fluid is prone to evaporate quickly; be sure to close the bottle tightly immediately after use.

Chemical Disposal
To dispose of any unused or used chemicals or materials that have been contaminated by any of the chemicals contained in the kit please follow the appropriate local procedures with respect to environmentally friendly hazardous waste disposal.

INTRODUCTION TO CANNALYTICS SUPPLY

Cannalytics Supply test kit is part of an international collaborative effort in hand with Alpha-CAT based in Europe to provide scientific support for all cannabis crafters & `active persons in the medical cannabis community.

Our Mission
Cannalytics Supply and Alpha-CAT are committed to the advancement and normalization of medical and recreational cannabis to create standardized dosage recommendations for consumers and to educate the end-user about natural cannabinoid compounds.

Our Method
Cannalytics Supply is based on the Alpha-CAT testing protocol which utilizes High Performance Thin Layer Chromatography for the purpose of analyzing the presence of cannabinoids in cannabis derived sample or cannabinoid derived products. It has been scientifically validated by the University of Leiden in the Netherlands in accordance with ICH guidelines to provide fast and accurate results. It gives quantitative percentages of CBD, CBN, THC, THCV, CBG and CBC. It also analyses acidic counterparts such as THCA and CBDA which provide insight into sample age and quality of curing. It requires only a 100mg sample to provide results in less than 45 minutes and multiple samples may be analyses simultaneously. It is a portable test kit that can be taken anywhere to tests flowers, extracts, kief/hash and other concentrate extracts providing data necessary to accurately titrate dosages for labelling products.

Our Goal
To help and support cannabis users and cannabis industrials to have a comprehensive analysis reference to understand the relationship between cannabinoid derived product and its production method to obtain quality product from cannabis.

C.A.T. INCLUDED COMPONENTS:

BASIC KIT CONTENT | **STANDARD KIT CONTENT** | **PRO KIT CONTENT** | **EXPERT CONTENT**

Pipettes (2ml)

2x
3x
5x
6x

20x

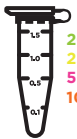
Capillary Tubes

30ml
40ml
80ml
160ml

Test Fluid

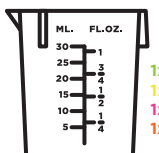
Pipette Bulb

1x



20x
25x
50x
100x

Eppendorf

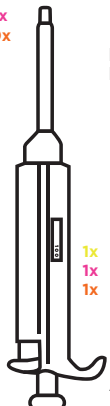


1x
1x
1x
1x

Beaker (30ml)

Dye

4x
5x
10x
20x



1x
1x
1x

Adjustable Volume Pipette Pump

25x
50x
100x

Micro Pipette Tips

Nitrile Gloves

8x
10x
20x
40x

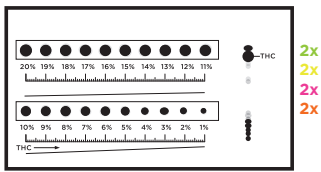
TLC Test Plate

4x
5x
10x
20x

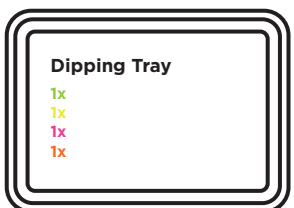
Developing Jar

1x
1x
1x
1x

THC & CBD Cannabinoid Percentage Ruler



2x
2x
2x
2x



Dipping Tray

1x
1x
1x
1x

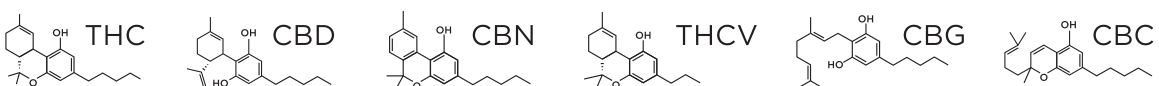
PLEASE READ THROUGH THIS ENTIRE MANUAL BEFORE PROCEEDING WITH YOUR FIRST TEST

Digital Manual available at
https://www.cannalyticssupply.com/cannalytics_manual.pdf

Tutorial Video : https://vimeo.com/203071844
or search for: "Alpha-CAT Cannabinoid Analysis Test Kit Demo Video" keywords directly in Youtube.

THC & CBD Cannabinoid Percentage Ruler are included with the Alpha-Cat test kits. These rulers will enable you to easily determine the cannabinoid percentages as well as the Cannabinoid ratio in your sample.

TEST TO KNOW WHAT IS IN YOUR MEDICINE!



DEFINITIONS

Cannabinoids: The pharmacological active compounds present in Cannabis.

Cannabis: Plant producing cannabinoids in leaves and flower clusters.

Cannabinoid matrix: any materials containing cannabinoids.

Cold print: The spots of origin are not heated; a natural fingerprint will be the result after developing the plate. The acids and the neutral cannabinoids will be revealed. It measures the freshness of the sample.

Hashish: A cannabis product made from cured trichomes of cannabis flowers.

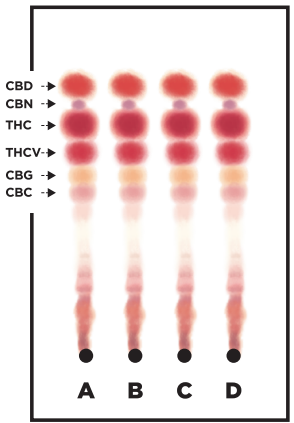
Hemp: Cannabis strain cultivated for fiber with minimal levels of THC. A non-drug type of cannabis.

Hot Print: Prior to developing the plates, the spots on the plate are heated with the oven or with the heating device in order to transform the cannabinoid acids into their neutral states.

Origin: Extraction fluid application spot. The place on the TLC plate where 1 or 2µl of extraction fluid will be applied with a capillary tube.

Trichome: Fine structured outgrowth of cannabis. Cannabis (stalked glandular) trichomes contain a resin excreting head-cell: a crystal-like bulge will be formed during flowering, trichomes produce the cannabinoids.

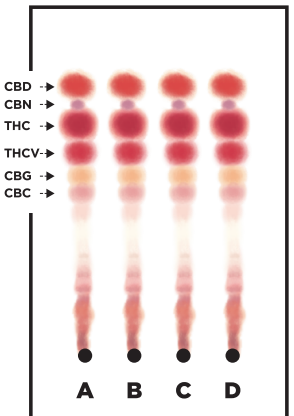
POTENCY TESTING



LANE 1	LANE 2	LANE 3	LANE 4
Origin position A	Origin position B	Origin position C	Origin position D
Sample 1	Sample 2	Sample 3	Sample 4
1µl hot print	1µl hot print	1µl hot print	1µl hot print
CBD, CBN, THC, THCV, CBG, CBC%	CBD, CBN, THC, THCV, CBG, CBC%	CBD, CBN, THC, THCV, CBG, CBC%	CBD, CBN, THC, THCV, CBG, CBC%
Multiply x2 the reading result measured by the cannabinoid ruler.	Multiply x2 the reading result measured by the cannabinoid ruler.	Multiply x2 the reading result measured by the cannabinoid ruler.	Multiply x2 the reading result measured by the cannabinoid ruler.

In this particular example we are showing 4 test per plate but you can reduce the space per sample to be able to test 5 sample per plate

CHEMOTYPE PROFILING



LANE 1	LANE 2	LANE 3	LANE 4
Origin position A	Origin position B	Origin position C	Origin position D
Sample 1	Sample 1	Sample 1	Sample 1
4ul hot print	2ul hot print	1ul hot print	2ul cold print
Detection of minor cannabinoids %	THC/CBD Detection below 20 %	THC/CBD Detection above 20 %	THCA/CBDA cannabinoid acid detection
Divide by 2 the results measured by the cannabinoid ruler.	Final reading result measured by the cannabinoid ruler.	Multiply by 2 the reading result measured by the cannabinoid ruler.	Final reading result measured by the cannabinoid ruler.

PREPARATION FOR TESTING

Before proceeding with testing make sure to identify and familiarize yourself with all the test components and prepare them for their appropriate use in the process. Only perform this test in a well-ventilated area or under a carbon filtered fume hood. Always wear nitrile gloves when handling chemicals.

1. Make sure all the measuring utensils, pipettes and test tubes are within easy reach.
2. Make sure all the chemicals are within reach.
3. Lay out the number of test plates that are needed. Up to five tests can be performed simultaneously once the operator is skilled in the test procedure. Do not touch the test plates with bare hands, use gloves.
4. Set out the developing jar(s). One developing jar is needed for each test plate used.
5. Set out the scale and a timer.
6. Read through the test procedure as many times as necessary to become comfortable with the procedure and methods before performing the first test.

The following should be supplied by the user:

Timer

Scale weighing from 0.001g to 0.01g

600dpi Scan

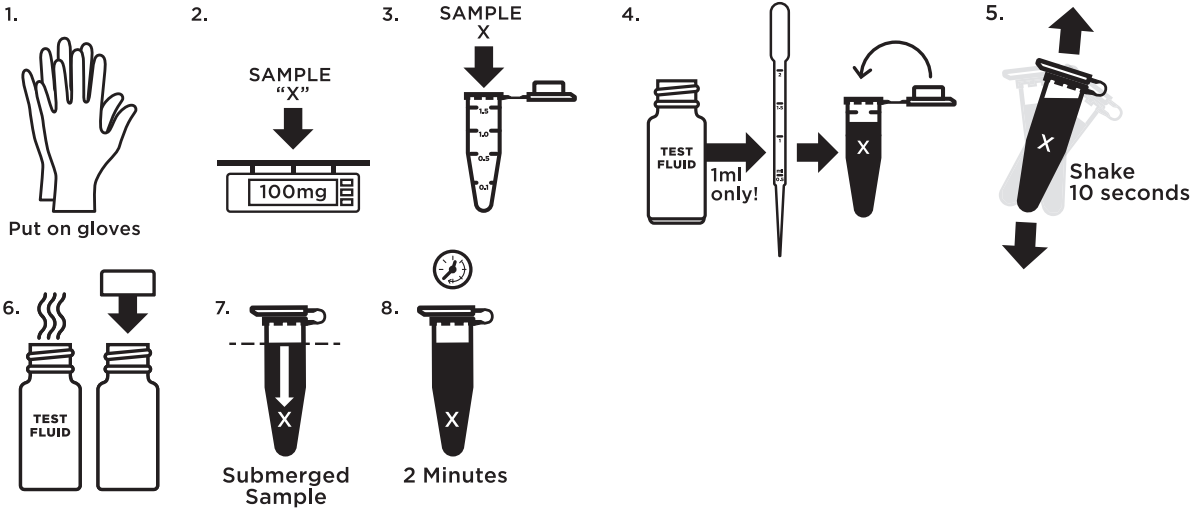
Paper Towels

A well ventilated working area (ideally a carbon-filtered fume hood)

All cannabinoid matrix samples

IMPORTANT: The test plate images fade with time and do so faster under light. Scan of the plate should be taken as the plate is dry after colorization (15 Mins).

1. EXTRACTION



HOW TO USE THE CANNABINOID PERCENTAGE RULER

HOW TO USE THE ALPHA-CAT CANNABINOID PERCENTAGE RULER

The Percentage Ruler tool is printed on clear plastic and has two ways to measure the size of all Cannabinoid dots.

There are two rows of dots that gradually get larger from right to left: The bottom row dots (from 1% to 10%), the top row of dots (from 11% to 20%). Underneath these dots you see a line with percentage marks on it. This line runs parallel with the size of the dots and works together with the sloped line underneath which runs closer at the 1% dot and slowly moves further apart as the dots get larger.

How to use the Percentage Ruler:
The ruler works by using the percentage line and the sloped line below the percentage ruler. Lay the ruler over dot you want to measure - the dot should fit snug between the two lines. Move the ruler until the dot fits snug, the place where the dot fits snug is the % reading above the ruler. The ruler can be used to work beyond a whole number, like 8% in this sample.

CHEMOTYPE PROFILING INFORMATION

HOW TO MEASURE THE CANNABINOID ACID
By doing a chemotype profiling you can calculate the acid form for each cannabinoid by making the difference between the cannabinoids measured in position B (2µl heated print) and position D (2µl raw print). For example if you obtain 16% THC on position B and 5% THC on position D, then THCA = 16% - 5% = 11%.

HOW TO MEASURE THE SECONDARY CANNABINOID (CBN, THCV, CBG, CBC)
By doing a chemotype profiling you will be able to visualize and measure the secondary cannabinoids by looking at postion A (4µl heated print) and diving the reading result by 2

For any questions, please contact: info@cannalyticssupply.com

CANNALYTICS
Powered by
ALPHA-CAT
Cannabinoid Analysis Test
Chromatographic Compositional Analysis
Know What is Inside your Cannabis
Contains 4 potency testing plates for 16 to 20 tests
THC
CBD
CBN
THCV
CBG
CBC
FOR PROFESSIONAL USE ONLY
Designed by ALPHA-CAT in Czech Republic, assembled in Colorado-USA
B
Contains 10 potency testing plates for 40 to 50 tests
STANDARD
S
Contains 20 potency testing plates for 80 to 100 tests
EXPERT
E

CANNALYTICS