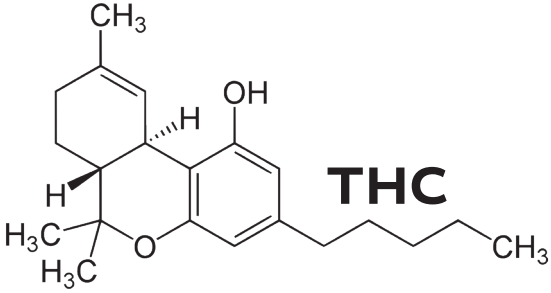
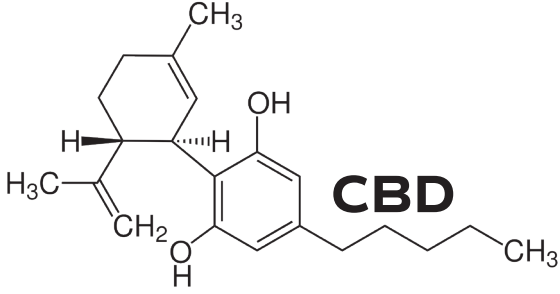
THC/CBD QTest



THC



CBD

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- INSTRUCTION MANUAL -

FIRST QUANTITATIVE THC/CBD TEST KIT
for determining the potency of dried flower buds, extracts, or vapes

IMPORTANT INFORMATION - READ THIS FIRST!

- Use this kit at room temperature (if stored in a refrigerator, let it warm up for one hour first).
- Perform the test on a flat surface during the daytime.
- Evaluate the result in good light conditions immediately after the 10 minute development time (the color can change if you wait too long).
- Use a white, letter-sized sheet of paper as a background when evaluating the color (see section 4 for evaluation details).
- Read all the instructions at least once before beginning the test.

INSTRUCTIONS FOR USE

1. BACKGROUND INFORMATION

You can use this test to independently determine the potency of THC and CBD. Dried and homogenized plant components and typical cannabis extracts, such as oils, budder, and shatter, are suitable as sample material. The test also works with cannabinoid extracts mixed with vape liquid.

The test can be used to indirectly test for synthetic cannabinoid samples, as these are statistically most of the time sprayed onto herbs or CBD flowers. Therefore, no THC is detectable in the test. If this is the case, the sample should be subject to further analysis, for example, with the miraculix antibody test for synthetic cannabinoids.

2. PREPARING FOR THE TEST

Take out all the items from your kit. Along with these instructions, you should have:

- Protective gloves
- Plastic dropper bottle with a colored cap (for the determination of CBD)
- Blister with a developer liquid
- Small glass vial with yellowish solid detection reagent (for the determination of THC)
- Evaluation color chart with quick reference guide

When testing dried plant material:
You will need a milligram scale (make sure that your scales can weigh small quantities safely and follow the tips for the most accurate weighing result), and either a small funnel or a creased piece of paper to carefully pour the flower material into the extraction vial. (You can make your own paper funnel. Google it!)

Before you begin the test, you must homogenize your dried material. A coffee grinder or typical grinder works best. If you do not have a grinder, you can chop your material finely on a cutting board using a sharp knife. (Starting with a pair of scissors can make chopping more straightforward.) Then, mix the chopped material thoroughly. You will use **20 milligrams** (mg) of material for the test. The result will show the percentage of THC and CBD in the remaining homogenized material.

You want to test extracts or liquids/oils? Please follow the QR code in section 5 to find the detailed instructions online.

3. PERFORMING THE TEST

3.1



First, wear the enclosed nitrile gloves and wear appropriate protective clothing and safety glasses. If you wear contact lenses, remove them. The vials' liquids contain acids that may cause skin irritation or severe eye damage. If you come in contact with the liquid, remove the affected clothing immediately and rinse the affected skin area with water for several minutes. In case of eye contact, rinse the affected eye with running water for several minutes. (Keep pets, especially cats, away from the testing area.)

3.2





Prepare a flyer or something similar as a base and place it on a scale. Tare the scale to „0". Now place the homogenized sample on the flyer and weigh **20 mg (0.02 g)** of the starting material.

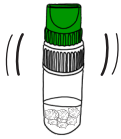
Note: *Look in our store: we have an affordable but powerful scale on offer that you can trust. Some scales may have difficulty measuring smaller amounts and work better in higher measurement ranges. In this case, use an additional weight (e.g., a quarter or coin) to increase the measurement range. This helps improve the accuracy of the result. Add the weight of the crushed sample to that of the additional weight.*

3.3



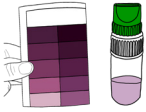
To detect CBD, open the plastic dropper by slightly turning the entire cap (white twist cap).
Add 20 mg (0.02 g) of your homogenized material. **For extracts/liquids, check the QR code in Step 5.** Afterward, close the plastic container tightly with the corresponding lid.

3.4



Shake the container well for about 15 to 20 seconds. Set the plastic dropper bottle aside for **10 minutes**. Repeat the shaking process 1 to 2 times during this time **(make sure that the components of the starting material remain in the liquid after shaking)**.

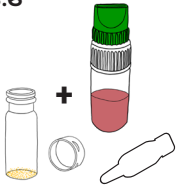
3.5



After 10 minutes, the result for CBD can be evaluated using the color scale. If CBD is present, the detection liquid will turn „purple".

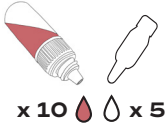
Please see the information under point 4, „EVALUATING THE RESULT".

3.6



To determine THC, you will need the small glass vial, the plastic dropper bottle you used to determine CBD, and the blister with the developer. Place these components in front of you. Carefully open the screw cap of the small vial and place it safely in front of you.

3.7

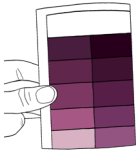




Now, take the plastic dropper bottle and remove only the colored lid. Add **ten drops** to the small glass vial containing the detection reagent. Next, you will twist and tear off the top of the plastic blister (to open it) and add **five drops** of the liquid into the glass vial. Close the vial and the dropper bottle tightly with the appropriate lids. Gently move the glass vial several times to mix the reagents.

IMPORTANT: Ensure the liquid is congregated at the bottom before opening the blister. Otherwise, it can spill out when you tear it open. If you see liquid near the top (near the tear point), shake it a little or tap it on a table so the liquid drops to the bottom. Then, it is safe to twist and tear off the top.

3.8



The reagents begin to change color and can now be evaluated directly with the color scale. See the next section, "EVALUATING THE RESULT," for details.

4. EVALUATING THE RESULT

The coloration typically begins within a few seconds.

Plastic dropper - CBD concentration after 10 min

- For the determination of CBD, the color development in the plastic dropper bottle takes **10 minutes** at room temperature. It should be **done immediately after this time**. You have about 5 minutes for this. The liquid will continue to discolor over time, thus falsifying the result.
- In the presence of CBD, the liquid turns purple. The detection reagent in the plastic dropper does not change color in the presence of THC, but only in the presence of CBD.

Glass vial - THC concentration immediately

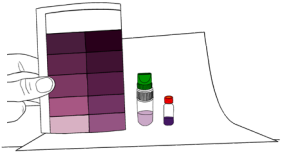
- The discoloration for the determination of THC can be evaluated in the small glass vial **after about 10 seconds**. Analyze the result directly. Over time, the vials may continue to discolor.
- If THC is present, there will be a distinct color change to dark purple.
- If only CBD is present, the glass vial will turn orange.
- The detection reagent in the glass vial changes color to slightly grayish if THC/CBD is absent.

By combining the two results appropriately, the presence of one or both active ingredients in the mixture can be detected. For assistance you could use the quick reference guide. If you cannot detect THC despite an effect, the sample is most likely contaminated with other active substances such as synthetic cannabinoids. The sample should be subject to further analysis.

You can visually determine the result by comparing the intensity or saturation of the liquid in the vial with the enclosed color chart. Good light conditions are essential for optimal evaluation. The best **place would be a bright room without direct sunlight on the vials**. If using artificial light, the influence of different color temperatures may slightly change the hue. You can still perform the evaluation, but consider this (e.g., high blue content in energy-saving lamps, green discoloration when using LED light from cell phones, etc).

SPECIFIC EVALUATION INSTRUCTIONS

- Use a white, letter-sized sheet of paper as a background.
- Under good light conditions, hold the plastic dropper and the glass vial next to the color chart about **six to eight inches in front** of the white sheet of paper and look through the glass vial **head-on**. For best results, your eyes should be pretty close to the vial but no closer than about six to eight inches.
- Now compare the color of the liquid in the vials to the color chart. For CBD, use the left color scale. For THC, the right one. The corresponding concentration of THC and CBD is listed as a percentage.



- This concentration applies to your remaining homogenized material.

5. EXAMPLE PICTURES AND FREQUENTLY ASKED QUESTIONS

For assistance in evaluation, our website provides comparison images that show the colored vials for all concentrations and answers to commonly asked questions. Follow the QR code or visit https://www.miraculix-lab.de/en/faq-thc-cbd

You can take a photo of your evaluation similar to ours, and you can digitally analyze the colors using programs like ImageJ. Do you want even more precise and reproducible results without evaluating the color yourself? Then check out our new open-source spectrophotometer, which we provide with laboratory-calibrated reference curves tailored explicitly for our QTests.

FURTHER INFORMATION:
You can find factual information about individual substances on websites like psychonautwiki.org or erowid.org. These sites provide much information about pharmacology, subjective effects, possible side effects, and other harm reduction measures. If you have further questions, feel free to reach out to us. We can often direct you to local Safer Nightlife or Harm Reduction projects for counseling and support.

6. LIMITATIONS

- Typically, synthetic cannabinoids are sprayed onto CBD flowers or herbs that do not contain THC. However, a sample that tests positive for THC and CBD may still contain other active ingredients.
- Results can be affected by other substances (see section „Disclaimers“).
- It is best to evaluate the colors during the day in a bright room, look from the front at the height of the vials, and keep the distance between the vials and the white background. Individual visual interpretation can lead to users misjudging the concentration, typically just by one color field. Correct usage and using our comparison images significantly reduce these variations among participants. Validations have shown that even inexperienced users, without knowledge of the instruction guidelines, could confidently assess whether it was a weak, medium, or strong concentration.
- Sources of potential inaccuracies in concentration results: Inaccurate weighing result (scale not accurate), variations in drop size, expired/discolored detection reagents, not all CBD/THC was extracted due too short extraction time, too short or too long incubation time, non-representative sample tested (homogenized quantity too small or insufficiently homogenized).

7. STORAGE AND SHELF LIFE

Store the reagents at room temperature (35° - 68° F) and out of direct sunlight for a shelf life of at least 18 months after production. If possible, it is always best to store reagents in a refrigerator. Detection reagents in glass vials may change color from yellowish solid to grayish over time. The test can still be used, but the color result of the THC content will be reddish rather than purple.

8. WARNINGS

- Pay attention to the warnings on the zip bag. Always keep the ingredients in this bag even after use.
- The test kit must always be kept away from children and animals at all times.
- When using the test kit, suitable gloves, protective clothing, and face/eye protection must be worn.
- If you wear contact lenses, remove them before use.
- All delivered materials and liquids should not be ingested or inhaled.

- The included liquids in the test kit contain various acids that can cause skin irritation or severe eye damage/irritation. Skin, eyes, mouth, or clothing contact should be avoided.
- If contact occurs with the above-mentioned areas, remove the relevant clothing immediately. Rinse or flush affected skin areas immediately with plenty of water for several minutes.
- In case of contact with the eyes, rinse them immediately with plenty of water for several minutes.

9. DISCLAIMERS

- Miraculix QTests are to be used only for research purposes and to quantify unknown substances.
- Your sample may be contaminated with one or more unknown substances that cross-react with the reagents and affect the quantitative result.
- Miraculix assumes no responsibility for using or misusing the test kit or the results.
- Samples processed with the test kit are not to be consumed.
- Patent pending technology.

10. DISPOSAL OF MATERIALS

Check your local regulations for proper disposal of acids.

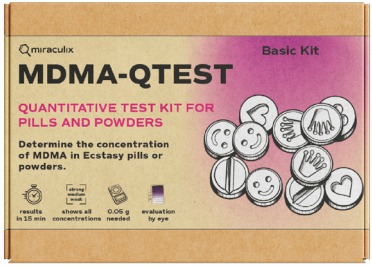
MIRACULIX COMMUNITY RESEARCH

Submit your results and the sample strain anonymously and help us with our first big community research project. Together with the Charité - Universitätsmedizin Berlin, we are also assessing subjective experiences to collect data on the entourage effects of various cannabis strains.

The university ethics committee has approved the survey, so we can ensure that the data can be published as open source afterward, and all participants are guaranteed anonymity. You can find more information by following the QR code below: https://survey.charite.de/miraculix/

Join our community and be an essential part of open-source science!

WHAT MIGHT ALSO INTEREST YOU



Our MDMA-QTest determine the concentration of MDMA in Ecstasy pills or crystals.



Our LSD-QTest determine the concentration of LSD in blotters, sugar cubes and liquids.

For more information, visit:

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