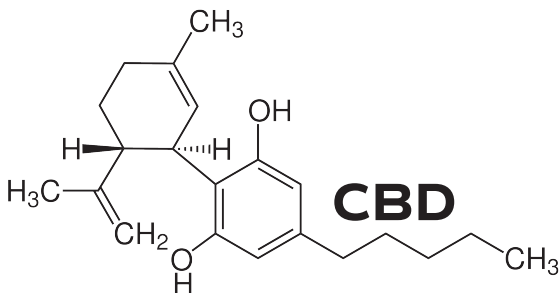
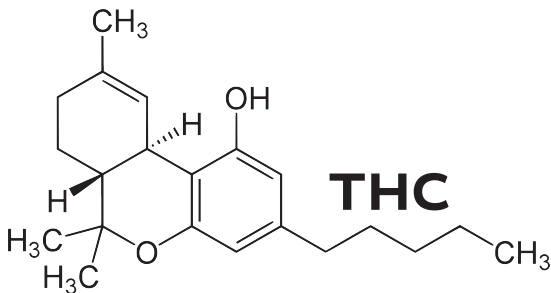


THC/CBD

QTest





- INSTRUCTION MANUAL -

FIRST QUANTITATIVE THC/CBD TEST KIT
FOR DETERMINING THE POTENCY IN DRIED
FLOWER BUDS, EXTRACTS

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 A4 sheet of paper as a background when evaluating the color (see section 4 for evaluation details).
- Each QTest (reagents packed in a zip-lock bag) is intended for single use only.
- Read all the instructions at least once before starting the test.

INSTRUCTIONS FOR USE

1. IMPORTANT BACKGROUND INFORMATION

You can use this test to independently determine the potency of THC and CBD. The components of dried and homogenized flower buds and typical cannabis extracts, such as oils, budder (cannabis butter), and shatter (cannabis concentrate in crystal form), are suitable sample materials. The test also works with cannabinoid extracts mixed with vaping liquid.

The test can be used to indirectly test for **synthetic cannabinoids**, as these are often sprayed onto CBD herbs or flowers in most cases. Synthetic cannabinoids are chemical compounds created in laboratories that mimic the effects of natural cannabinoids, such as THC found in the cannabis plant. Because new versions of these compounds are constantly being developed to evade laws, they are Research Chemicals - never tested on humans before -, and therefore harbor major health risks.

Therefore, if THC is not detected in the test, but you expected an effect, the sample is immediately highly suspicious and should undergo further analysis. You can use, for example, the synthetic cannabinoid antibody test available on our miraculix website, or send the sample to a laboratory for further analysis.

2. PREPARING FOR THE TEST

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

Per box:

- One pair of protective gloves
- One evaluation color chart with a quick reference guide

Per test: single-use application

- Plastic dropper bottle with a colored cap and clear solution (for the determination of CBD)
- Blister with a developer liquid
- Small glass vial with yellowish solid detection reagent (for the determination of THC)

When testing dried plant material:

You will also need a **milligram scale** (make sure that your scales can weigh small quantities safely and follow the QR Code in section 5 for 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. 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 zero. Now place the homogenized sample on the flyer and weigh **20 mg (0.02 g)** of the starting material.

***Note:** Check out our store: We have an affordable, accurate, and calibrated scale available 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 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 without using the tara function.*

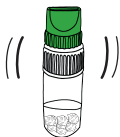
3.3



To detect CBD, open the plastic dropper by slightly turning the entire cap (white twist cap).

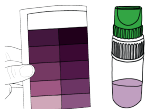
Add **20 mg (0.02 g)** of your homogenized material. **For extracts/liquids, check the QR code in Step 5.** Afterward, close the plastic dropper tightly with the corresponding lid.

3.4



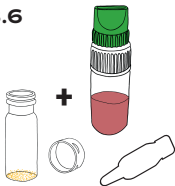
Shake the container well for about 15 to 20 seconds. Set the plastic dropper bottle aside for **10 minutes**. Repeat the shaking process 1 to 2 times during this time (**make sure that the components of the starting material remain in the liquid after shaking**).

3.5



After 10 minutes, the result for CBD can be evaluated using the left side of the color scale. If CBD is present, the detection liquid will turn "purple". Please see the information under section 4.

3.6



To determine THC potency, you will need the small glass vial, the plastic dropper bottle you used to determine CBD, and the blister with the developer liquid. 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 may 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 that 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 right side of 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 concentration, 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. Afterward, the liquid will continue to discolor over time, which could lead to an incorrect 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

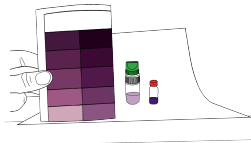
- The discoloration for the determination of THC concentration can be evaluated in the small glass vial **after about 10 seconds**. Analyze the result directly. Over time, the vial may continue to discolor.
- If THC is present, there will be a distinct color change to dark purple.
- If only CBD is present,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

By properly combining both results, the presence of one or both active ingredients in the mixture can be detected. For assistance, you can use the quick reference guide. If you do not detect THC despite experiencing an effect, it is very likely that the sample is contaminated with other active substances, such as synthetic cannabinoids. In this case, the sample should undergo further analysis. We recommend performing an antibody test, which you can find available on our website, or sending your sample to a laboratory for further analysis.

You can visually determine the result by comparing the intensity or saturation of the liquid in the dropper and 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 dropper and vial**. 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 A4 sheet of paper as a background.
- Under good light conditions, hold the plastic dropper and the glass vial next to the color chart about **15 to 20 centimeters** of the white sheet of paper, and view them **head-on**. For best results, your eyes should be pretty close to the dropper and vial but no closer than about **15 to 20 centimeters**.
- Now, match the final color of the liquid in the dropper and vial to a color on the color scale and read the corresponding amount of your tested sample. 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. TIPS AND FREQUENTLY ASKED QUESTIONS

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



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. If you want us to integrate the THC/CBD-QTest to the Qtest Photometer please send us feedback for that.

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

- A variety of substances do not show a color reaction or show a different color when using the quantitative detection reagent. If a completely different substance is present, this is indicated by the absence of color or a different color result. 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, such as derivatives of these, which may have similar colors and be mistaken for THC. Additionally, HHC will show a gray or black color.
- Results can be affected by other substances (see section 9, "DISCLAIMERS").
- **It is best to evaluate the colors during the day in a bright room**, look from the front at the height of the dropper and vial, and keep the distance between them 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 (2 - 20 °C) out of direct sunlight for a shelf life of at least 18 months. If possible: it is best to store the chemical reagents chilled in the 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.
- 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 for research purposes and quantification of unknown substances only.
- Your sample may be contaminated with one or more unknown substances that cross-react with the reagents and affect the quantitative result.
- The result does not mean your sample is safe to consume. It could still contain unwanted substances and impurities that can be harmful or even deadly.
- The result of a tested sample should not be considered definitive. Many factors, including mixtures of multiple substances, cross-reactions, and/or lighting conditions play a role in chemical reactions. The sample could contain undesirable substances and contaminants that may be harmful or even deadly if consumed.
- 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.

10. DISPOSAL OF MATERIALS

Check your local regulations for proper disposal of acids.

MIRACULIX COMMUNITY RESEARCH

We started our first open source community research on psychedelic substances. Together with the Charité - Universitätsmedizin Berlin, we are collecting data from the QTests results together with the subjective experiences of the community to research on the entourage/ensemble effects of magic mushrooms.

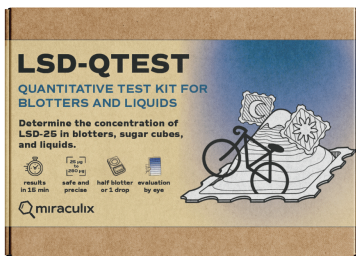
If you want to learn more: Check our website and join our community!



WHAT MIGHT ALSO INTEREST YOU



Our PSILOCYBIN-QTest determine the concentration of psilocybin in dried mushrooms, truffles and extracts.



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

For more information, visit:

