

# CBD/THC TESTING

## NOW AVAILABLE THROUGH LABCORP

## Cannabidiol (CBD)/Tetrahydrocannabinol (THC) Ratio, Urine

With the rise in the commercial availability and use of products containing CBD<sup>1,2</sup>, health care providers are increasingly faced with the challenge of determining if a positive marijuana drug test was caused by use of a CBD product, or from use of marijuana, medical THC, or other THC products. To assist our clients in differentiating CBD use from marijuana use, LabCorp has developed a new assay measuring and calculating a ratio of CBD and THC metabolites in urine.

**Test Number:** 701907, Cannabidiol (CBD)/Tetrahydrocannabinol (THC) Ratio, Urine  
**Specimen Type:** Urine (random)  
**Methodology:** Liquid chromatography/tandem mass spectrometry (LC/MS-MS)  
**Use:** To assist in distinguishing whether a positive urine THC test is exclusively the result of CBD use  
**Volume:** 30 mL  
**Ordering:** May be ordered in addition to a drug-test panel or separately.

## Questions and Answers

### What is CBD?

The cannabis plant contains more than eighty biologically active compounds<sup>3</sup> and CBD is one of the plant's main active ingredients.<sup>2</sup> CBD is also found in hemp plants, which have lower levels of psychoactive THC than marijuana. Commercially available CBD products that are not prescribed under medical marijuana laws must be derived from hemp, containing less than 0.3% of THC by weight.<sup>3</sup> However, testing of CBD products is currently neither uniform nor mandated. Thus, many CBD products are not free of THC and product packaging may not accurately reflect the actual THC content.<sup>4</sup>

### Why order the CBD/THC ratio urine test?

In instances where a donor tests positive for marijuana (THC metabolite present in urine), and the donor denies marijuana use but claims using CBD, then the measurement and comparison of CBD metabolites relative to THC metabolites may assist with distinguishing if the source of THC in the urine sample could have resulted from CBD use, or from surreptitious marijuana use.

### How is the CBD/THC ratio calculated?

The LabCorp CBD/THC ratio test measures CBD and THC metabolites in urine. The CBD/THC ratio is calculated using the sums of the respective metabolites. The ratio assists in differentiating the presence of THC metabolites due to either: the use of marijuana (medicinal or clandestine), or the use of CBD or hemp products containing unknown but presumably small amounts of THC. If the concentration of CBD metabolites greatly exceeds that of THC metabolites, the calculated metabolic ratio of a sample would indicate that the donor's sample appears consistent with the use of CBD products.

### How will the LabCorp CBD/THC ratio test result be reported?

CBD/THC Ratio	Interpretation*
>=10.0	Consistent with the use of CBD products only
1.0 – 9.9	Indeterminant
<1.0	Consistent with use of either marijuana, THC products, or mixed use

\*Interpretive ranges are provided as guidance and should not be considered definitive. Interpretation of results should include consideration of all relevant clinical and diagnostic information.

### References

1. U.S. Food and Drug Administration. Statement from FDA Commissioner Scott Gottlieb, M.D., on signing of the Agriculture Improvement Act and the agency's regulation of products containing cannabis and cannabis-derived compounds. <https://www.fda.gov/news-events/press-announcements/statement-fda-commissioner-scott-gottlieb-md-signing-agriculture-improvement-act-and-agencys>. Accessed August 19, 2019.
2. National Institute on Drug Abuse. Researching marijuana for therapeutic purposes: The potential promise of cannabidiol (CBD). <https://www.drugabuse.gov/about-nida/noras-blog/2015/07/researching-marijuana-therapeutic-purposes-potential-promise-cannabidiol-cbd>. Accessed August 19, 2019.
3. U.S. Food and Drug Administration. FDA regulation of cannabis and cannabis-derived products: Questions and answers. <http://www.fda.gov/news-events/public-health-focus/fda-regulation-cannabis-and-cannabis-derived-products-questions-and-answers>. Accessed August 19, 2019.
4. Substance Abuse and Mental Health Services Administration. Use of marijuana oils or marijuana infused commercial products. <https://www.samhsa.gov/sites/default/files/workplace/07-cbd-memo-11-21-17-final-letterhead-signed.pdf>. Accessed August 19, 2019.



[www.LabCorp.com](http://www.LabCorp.com)

If you have questions or would like additional information regarding this test, please contact your LabCorp representative or call our MDM support line at **877-474-5767**.