Cannabinoid Potency Testing

Quantification of cannabinoids within blood specimens

BACKGROUND:

Little is known about the effects of CBD and other cannabinoids. There have been claims throughout the industry that cannabinoids, such as CBD, are a powerful alternative medicine for some disease states when current medical practices have not provided a benefit to the patient. The only known drug that is approved for patient use is Epidiolex, an anti-seizure medication, that contains cannabidiol (CBD).

Limitations to the accuracy of product labels within the market and a lack of quality regulations in the manufacturing of these products has caused unreliable dosing for consumers. Consistent dosing from product to product is necessary in order to have these products see comparable outcomes for all users. If cannabinoids are to make it into medical practice in the future, detailed dosing and long-term effects will need to be researched so that proper and consistent potency during the manufacturing can be routinely produced. It is unknown what dose of a cannabinoid is necessary to provide the most benefit and lowest risk to the user, which is why research in this area is necessary.

METHOD:

Samples received will be tested using High Performance Liquid Chromatography, coupled with tandem Mass Spectrometry (LC/MS/MS). This methodology provides excellent sensitivity and specificity for the compounds of interest, allowing for the highest degree of certainty in compound identification and quantitation.

Sample preparation for this analysis is a key component. Cannabinoids are notorious for being "sticky" compounds that can adhere to proteins, lipids, and plastic surfaces, which can interfere with accurate analysis. We have developed a sample "clean-up" procedure that negates this "sticky" effect, leaving a homogenous distribution of cannabinoids in the analytical sample.

SAMPLE REQUIREMENTS:

Whole Blood:

200uL minimal

Recommended 4mL with EDTA (lavender tubes).

If you wish to test within a different matrix, please contact us to discuss.

TURN AROUND TIME:

48 hours

LIMIT OF DETECTION:

Compound	ng/ml	Compound	ng/ml
CBD	0.5	Carboxy-THC	2.0
Delta-9-THC	2.0	Delta-9-THC glucuronide	8.0