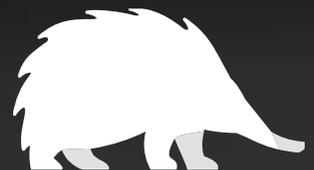


Ekidna Total THC Validation: Report on Fresh Bud

April 2024



Results contained in this report present Total THC values obtained from Ekidna As-Is Potency test kits (Fresh Bud analysis method), on a variety of freshly-harvested cannabis samples. A separate validation report is available for [As-Is Cured Bud THCa Potency](#).

As-Is Total THC Test Kit, Version 2: Fresh Bud

Sample Types	Whole fresh flower
Sample Mass	1050 – 1150 mg
THCa Potency Range	0.99% – 12.34%
Moisture Content Range*	60% – 80%
Accuracy	Within 0% – 10% relative of HPLC measurement
Extraction Time	5 min
Testing Time	2 min

*Moisture content range within which measured potency will be accurate. Not measured by Ekidna test; accurate external methodology required to determine moisture content.

If you are interested in testing a sample type or potency range not included in this report, please contact us to learn how we can tailor the Ekidna platform to your needs.

Comparison of Average %Total THC on Ekidna Test and HPLC

Average %THCa, %THC, and Total %THC results (for n samples), obtained on various freshly-harvested whole flower cannabis samples; all values in % (g/g).

The amount of THC in the freshly-harvested bud was minimal and below the limit of detection on the Ekidna system. By HPLC, the %THC was below 0.2% for all samples, with several samples even below the HPLC limit of detection.

Sample ID	n [†]	Ekidna		External HPLC				Total THC ^α		Offset, Total THC [§] (%)
		THCa (%)		THCa (%)		THC ^β (%)		Ekidna (%)	HPLC (%)	
		Value	σ [‡]	Value	σ [‡]	Value	σ [‡]			
ETFS-004	4	5.99	0.34	5.98	0.21	0.15	0.005	5.25	5.39	-0.140
ETFS-008	22	5.99	0.79	5.84	0.77	0.089	0.034	5.26	5.22	0.041
ETFS-009	22	7.85	0.92	7.89	0.85	0.050	0.015	6.89	6.97	-0.080
ETFS-010	5	5.52	0.64	5.80	0.69	LOD	-	4.84	5.09	-0.251
ETFS-011	6	7.48	1.6	7.74	1.6	0.058	0.004	6.56	6.81	-0.248

^α%Total THCa = %THCa*0.877228 + %THC. If THC was below threshold of detection a value of 0 was used.

[†]Number of samples tested. Samples harvested from various locations on the plants and in grow rooms.

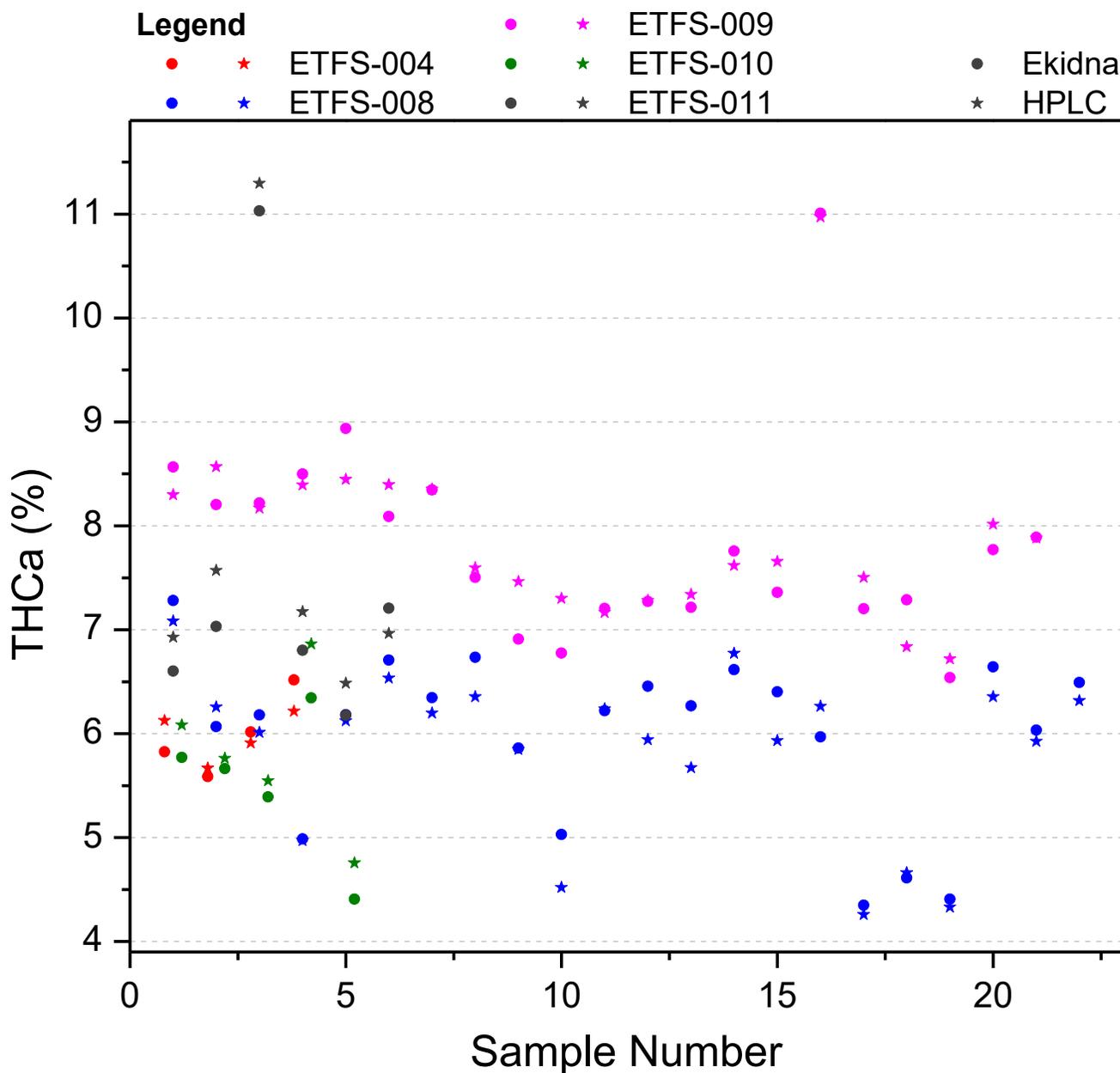
^β%THC was always below the threshold of detection on the Ekidna system, and for several samples by HPLC.

[‡]Standard deviation, 1σ (68%).

[§]Offset = Ekidna Value - External HPLC Value, calculated using Total %THC numbers.

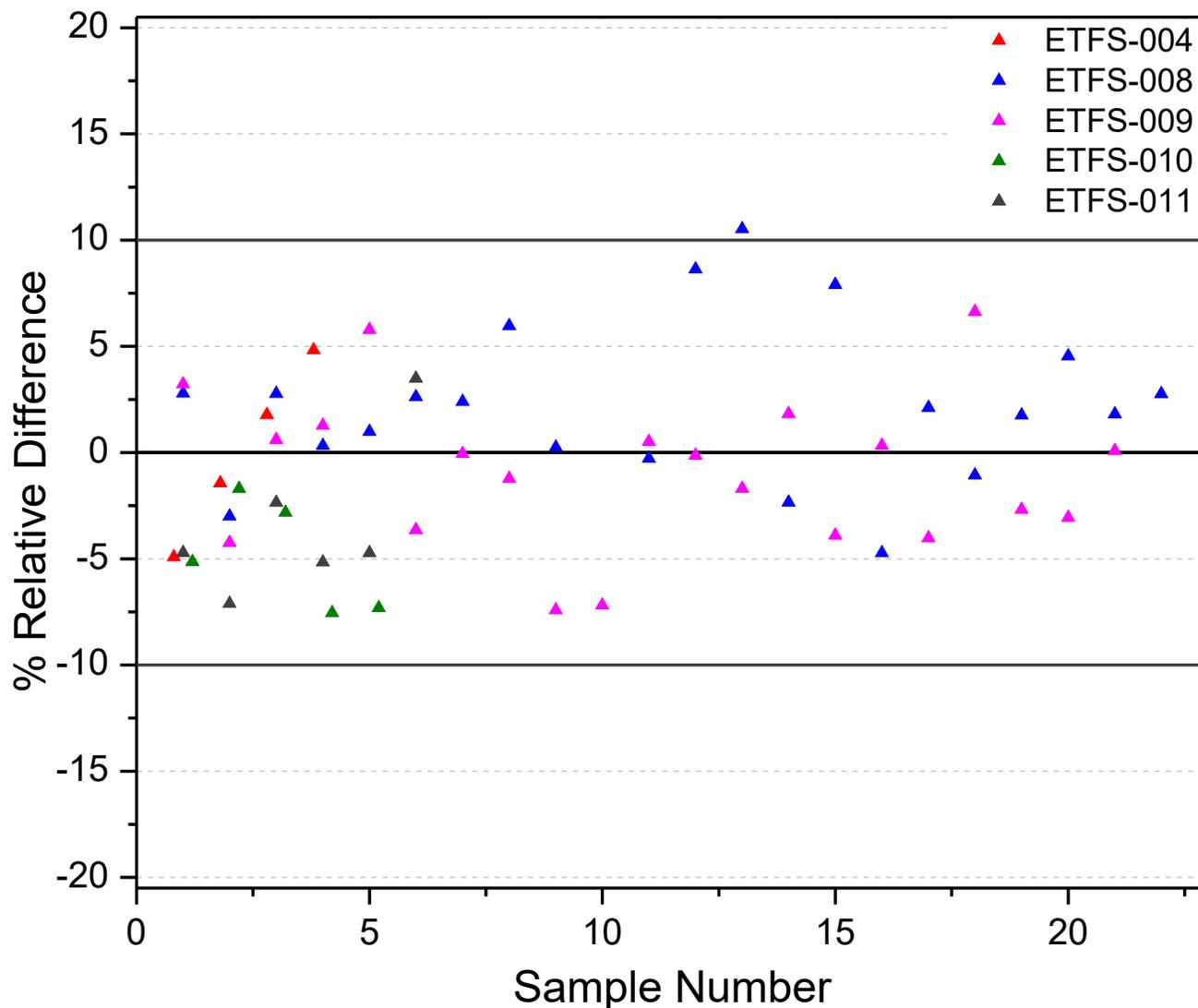
Comparison of %THCa Values on Ekidna Test with HPLC Values

%THCa values from Ekidna Fresh Bud analysis (circles) and corresponding HPLC experiments (stars) for the 59 samples (from 5 different harvests) summarized in the table above. HPLC samples were prepared directly from Ekidna test solutions and transferred to an external lab for testing. The bud samples were harvested from different locations on both the plants and within the grow room, so fluctuations between potency values within a sample set were anticipated.



Percent Relative Difference, Ekidna Test and HPLC

Percent relative difference between Ekidna test results and their corresponding HPLC values for all 59 samples discussed in this report.



Validation Procedure

The Ekidna Fresh Bud analysis procedure was validated using five different THC-dominant flower samples, donated from two different licensed producers operating indoor grows in Ontario, Canada. The samples were of different masses, harvested from different locations on the plants and (in some cases) different locations in the grow room. Leaves were trimmed from the samples and the bud pieces were cut (using shears) into samples of suitable mass for the Ekidna As-Is Fresh Bud procedure. All potency testing was performed within 12 hours of harvesting bud from the plants, with the majority of the experiments performed within 6 hours of harvest.

Whole flower pieces were weighed on an analytical balance, with additional pieces added if they were below 1050 mg, or small chunks cut off if they were above 1150 mg. The flower was then transferred to an Ekidna prep tube, shaken for 30 seconds to break apart the plant material, and allowed to extract in solution for 5 minutes. At the end of the extraction time an aliquot was transferred to the testing tube (using the syringe provided in the kit), the sensor cap was attached, and the sample was analyzed using the custom Ekidna reader and software. Please contact us or visit [our website](#) for a more comprehensive description of the testing procedure.

Upon completion of the test, ~ 2 mL of the testing solution was passed through a 0.2 µm PTFE filter into a vial and transferred to an external lab for HPLC testing. The correlation between both absolute values of average potency and percent relative difference (see equation below) of individual samples are outlined in this report.

$$\%Rel. Diff. = \left(\frac{\%THCa_{Ekidna} - \%THCa_{HPLC}}{\%THCa_{HPLC}} \right) \times 100\%$$

Additional experiments were performed on these harvested flower samples to determine moisture content. When the as-is potency outlined in this report is combined with moisture content, it is possible to adjust the as-is fresh bud potency into predicted potency after curing. Please see our [Adjusting As-Is THCa Potency with Moisture Content](#) report for further information.

Contact Info

Please contact Cali Barnstead (cali@ekidnasensing.com) or Nic Boileau (nic@ekidnasensing.com) for more information or questions.

Document Revision History

Date	Revision	Changes
April 2024	1.0	Initial release.