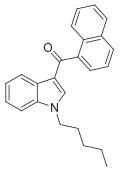
K2 (Synthetic Cannabinoids-1)

IMMUNALYSIS

DIRECT ELISA Kit for forensic matrices



JWH-018

Demonstrates significant cross reactivity with the major metabolites of JWH-018, JWH-073, JWH-200 and AM-2201.

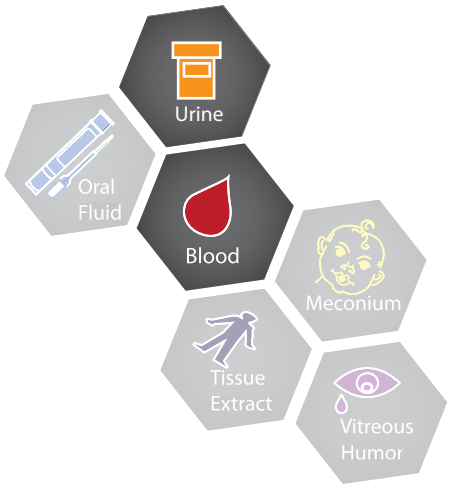
Schedule I Controlled Substances: JWH-018, JWH-073, JWH-200, JWH-019, JWH-122, JWH-398, JWH-081, JWH-250, JWH-203 CP-47,497, CP-47,497 C8, HU-210, HU-211, AM-2201, AM-694, RCS-4 (SR-19), RCS-8 (SR-18)

Street Names: Spice, K2, Genie, Yucatan Fire, Skunk, Sence, Smoke, ChillX, Highdi's Almdröhner, Earth Impact, Gorillaz, Galaxy Gold, Space Truckin, Solar Flare, Moon Rocks, Blue Lotus, Aroma, Scope, Sky, OG Potpourri, Bliss, Black Momba, Bombay Blue, Fake Weed, and Zohai.

About Synthetic Cannabinoids: Spice or K2 is a mixture of herbs and spices treated with synthetic compounds similar to THC that is typically sold in head shops, tobacco shops or over the internet. Though not structurally related, K2 mimics the psychoactive stimulant properties of THC but can be 100 to 800 times more potent than THC.[1]

Administration: Synthetic Cannabinoid products are usually smoked in joints or pipes, and sometimes made into tea.[2]

Effects: Psychological effects are similar to those of marijuana and include paranoia, panic attacks and giddiness. Physiological effects include increased heart rate and high blood pressure. Long-term effects are not known.[2]



1. Devane, W. A. *et al.* A novel probe for the cannabinoid receptor. *Journal of Medical Chemistry* 35 (11): 2065–2069 (1992).
2. Drug Enforcement Administration; www.dea.gov.

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Urine

Blood

K2 (Synthetic Cannabinoids-1)

DIRECT ELISA Kit for forensic matrices

IMMUNALYSIS

Assay Specifications

Methodology: ELISA

Cutoff: 5 ng/mL

Calibrator: JWH-018 N-pentanoic acid

Precision
JWH-018 N-pentanoic acid at 5 ng/mL

Interday Precision (n=80)

Concentration*	Mean A/A_0	SD	CV%
0	3.48	0.09	2.66
10 pg/well	2.89	0.18	6.07
50 pg/well	2.12	0.18	8.50
100 pg/well	1.71	0.15	9.03

* 1 ng/mL = 1000 pg/mL according to 10 µL sample size = 10 pg/well

Sensitivity: 89.2%
Specificity: 100%
Accuracy: 91.5%

		LC-MS/MS Qualitative Screens	
		Positive	Negative
ELISA (5 ng/mL)	Positive	58	0
	Negative	7*	18

* 4 specimens contained JWH-250 which is not detected by ELISA and 2 samples confirmed as weak positives.

Research shows that the parent JWH-018 compound may not be excreted in urine due to extensive metabolism.[3]

The detection of its metabolite, JWH-018 N-pentanoic acid, was identified as the single analyte of choice resulting in the highest confirmation rate for the detection of JWH-018 in urine.[3]

Initial data, final data available upon commercial release.

3. ElSohly, M.A. *et al.* Liquid Chromotography-Tandem Mass Spectrometry Analysis of Urine Specimens for K2 (JWH-018) Metabolites. *Journal of Analytical Toxicology,* 35: 487-495 (2011).

Cross Reactivity

Compound	Compound Concentration	JWH-018 N-pentanoic acid Equivalent	Cross Reactivity (%)
JWH-018 N-pentanoic acid	5 ng/mL	5 ng/mL	100
JWH-018 4-hydroxyindole	357 ng/mL	5 ng/mL	1.4
JWH-018 5-hydroxyindole	278 ng/mL	5 ng/mL	1.8
JWH-018 N-(5-hydroxypentyl)	4 ng/mL	5 ng/mL	125
JWH-018 N-(5-hydroxypentyl)-ß-D-glucuronide	5.5 ng/mL	5 ng/mL	91
JWH-073 6-hydroxyindole	20 ng/mL	5 ng/mL	25
JWH-073 N-(4-hydroxybutyl)	3.8 ng/mL	5 ng/mL	132
JWH-073 N-butanoic acid	6 ng/mL	5 ng/mL	83
JWH-122 N-(4-hydroxypentyl)	40 ng/mL	5 ng/mL	13
AM-2201 6-hydroxyindole	19 ng/mL	5 ng/mL	26
AM-2201 N-(4-hydroxypentyl)	3.75 ng/mL	5 ng/mL	133
3-(1-naphthoyl)-1H-indole	31 ng/mL	5 ng/mL	16
Cannabipiperidiethanone	17,500 ng/mL	5 ng/mL	0.03
JWH-007	700 ng/mL	5 ng/mL	0.7
JWH-015	200 ng/mL	5 ng/mL	3
JWH-018	33 ng/mL	5 ng/mL	15
JWH-019	280 ng/mL	5 ng/mL	1.8
JWH-022	18.5 ng/mL	5 ng/mL	27
JWH-073	22 ng/mL	5 ng/mL	23
JWH-081	10,000 ng/mL	5 ng/mL	0.05
JWH-122	417 ng/mL	5 ng/mL	1.2
JWH-200	7.5 ng/mL	5 ng/mL	67
JWH-201	100,000 ng/mL	5 ng/mL	0.01
JWH-250	25,000 ng/mL	5 ng/mL	0.02
JWH-398	1,250 ng/mL	5 ng/mL	0.4
AM-1220	10 ng/mL	5 ng/mL	50
AM-2201	15 ng/mL	5 ng/mL	33
AM-2232	5.3 ng/mL	5 ng/mL	94
AM-2233	330 ng/mL	5 ng/mL	1.5

For forensic use only.