



Synthetic Cannabinoid-2 Assay

This **NEW** homogeneous enzyme immunoassay provides the means to challenge the next generation of synthetic cannabinoids and their metabolites. Targeted at the detection of the new "Spice" or "K2" herbal blends such as UR-144 or XLR-11, this assay effectively complements the already available Synthetic Cannabinoid-1 assay. The combination of these two assays offers a potent screening tool for a wide range of synthetic cannabinoids.

Assay Characteristics

- Qualitative determination of newer synthetic cannabinoids in urine
- Highly sensitive detection of UR-144 and XLR-11, including their derivatives
- Comprehensive, rapid and cost-effective screening solution
- Liquid, ready-to-use reagents, calibrators and controls – no reconstitution required
- Application protocols for all major clinical chemistry analysers
- Packaging tailored for your laboratory's specific needs

Background

Synthetic Cannabinoids have been used as recreational drugs since the mid-2000s, prompting legal restriction of these substances in many countries. While the first-generation "herbal blends" are still prevalent, the manufacturers are constantly pushing new compounds onto the market to circumvent legislation.

UR-144 ((1-[5' fluoropentyl]indol-3-yl)-(2,2,3,3-tetramethyl-cyclopropyl)methanone) and its fluorinated analog XLR-11 are among the most recent and widely abused designer drugs. XLR-11 acts as a potent agonist for the cannabinoid receptors CB1 and CB2, whereas

UR-144 shows a higher affinity for the CB2 receptor rather than the CB1 receptor.

Since both UR-144 and XLR-11 have chemically different structures than the earlier generations of synthetic cannabinoids, such as JWH-018 or AM-2201, they are not detected by older versions of laboratory testing.

With these two assays, Immunalysis and Specialty Diagnostix are able to offer you a two-pronged approach to the analysis of synthetic cannabinoids and the detection of rapidly evolving new compounds.





Cross-Reactivities

Analyte	Concentration (ng/mL)	Cross-Reactivity (%)
UR-144 N-pentanoic acid	10	100
UR-144	20	50
UR-144 N-heptyl	40	25
UR-144 N-(5-bromopentyl)	25	40
UR-144 N-(5-chloropentyl)	20	50
UR-144 N-(5-hydroxypentyl) metabolite	25	80
UR-144 N-(5-hydroxypentyl)- β -D-glucuronide	30	33
A-796260	30	33
A-834735	20	50
AB-005	30	33
AM-2233	10 000	0.10
JWH-018 N-(5-hydroxypentyl) metabolite	3 000	0.30
JWH-250 N-(5-hydroxypentyl) metabolite	20 000	0.05
RCS-4-2 methoxy isomer	10 000	0.10
XLR-11	20	50
XLR-11 (N-hydroxypentyl) metabolite	70	14
XLR-11 N(4-pentenyl)	20	50
Cannabipiperidiethanone	50 000	N/D
JWH-250 N-(4-hydroxypentyl) metabolite	50 000	N/D
JWH-250 N-(5-carboxypentyl) metabolite	50 000	N/D

Ordering Information

Reagents	Size	Order No.
K2-II (Synthetic Cannabinoids-2) Assay	25 mL	346-0025EX
	60 mL	346-0060WEX
	100 mL	346-0100EX
Calibrators		
UR-144 N-Pentanoic Acid Calibrator, 10 ng/mL	1 x 5 mL	C346-5-1EX
Controls		
UR-144 N-Pentanoic Acid Control Set, 5 ng/mL Low & 15 ng/mL High	2 x 5 mL	C346-5-2EX

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