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NEWSLETTER

Edition: 0023

Rapid STAT® - High sensitive detection of THC in Saliva !

■ Germany: New measurement results of the German Police Forces

Drug parameter	AMP	COC	MET	OPI	THC
Cut-off	25	200	25	20	15
Total of samples	185	185	185	185	185
Total negatives	154	171	174	166	84
Total positives	31	14	11	19	101
Expected negatives	154	171	174	166	84
Correct negatives	150	170	174	165	80
False positives	4	1	0	1	4
% correct	97,40%	99,42%	89,52%	99,40%	95,24%
Expected positives	31	14	11	19	101
Correct positives	30	14	11	18	94
False negatives	1	0	0	1	7
% Correct	96,77%	100,00%	100,00%	94,74%	93,07%
Sensitivity	96,77%	100,00%	100,00%	94,74%	93,07%
Specificity	97,40%	99,42%	100,00%	99,40%	95,24%
PPV	88,24%	93,33%	100,00%	94,74%	95,92%
NPV	99,34%	100,00%	100,00%	99,40%	91,95%
Accuracy	97,30%	99,46%	100,00%	98,92%	94,05%

Additional control measurements of the Police in Germany (Rhineland-Palatinate and Saarland) have confirmed the sensitivity of the Rapid STAT® in THC. A sensitivity of 93,07 % was proved when examining 185 collected samples. GC/MS measurements in serum and saliva have been performed by the University of Mainz, Legal Medicine, Dr. Joerg Roehrich and by the University of Homburg/Saar, Legal Medicine, Professor Dr. Thomas Kraemer.

It was outstanding that regarding 5 of the donors that were tested positive with the Rapid STAT® a THC-serum-level in the range of the limit value of 1 ng/ml was detected (0.8, 0.9, 1.2, 1.6, 1.7 ng/ml). This argues for a high sensitivity of the test system !

■ Enschede/Netherlands: MAVAND tests 5 voluntary Cannabis Smokers with their Rapid STAT® !

The delta 9 THC concentration in saliva of five donors was examined with the Rapid STAT® and GC/MS after their consumption of Cannabis (1 Joint, 0.3 gr). A 100 % conformity was detected between the Rapid STAT® results and the ones of the GC/MS measurements. At the beginning of the test phase all donors have been negative in saliva.

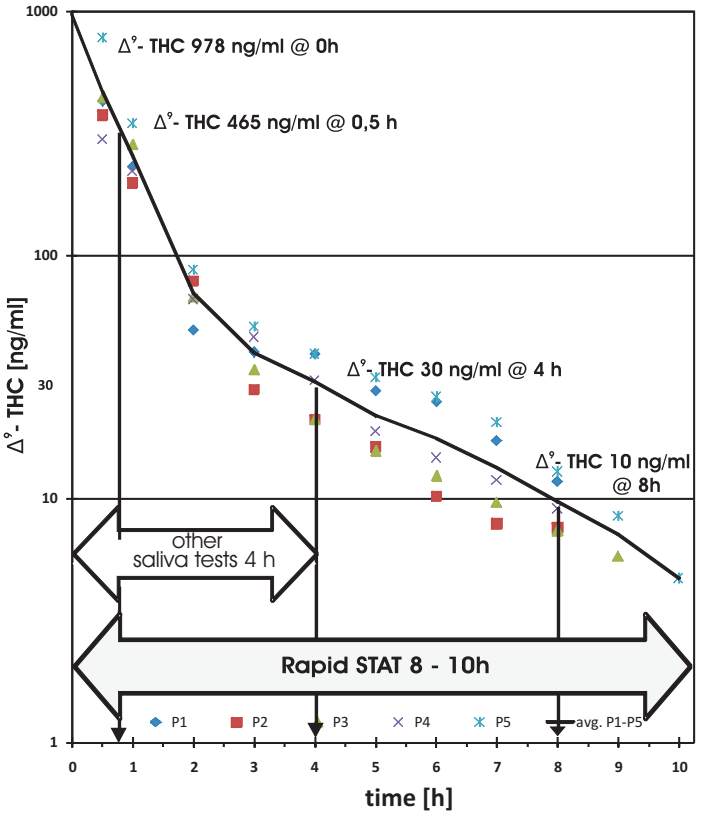
The observation period was max. 10 hours after cosumption of Cannabis. Saliva samples have been collected from the donors with the Rapid STAT® Collector after 0.5 h, 1 h, 2 h, 3 h etc.

A medium concentration of (465 +/- 185) ng/ml THC delta 9 was detected 0.5 h after consumption. This concentration decreased during the examination to 9.8 +/- 2.5 ng/ml delta 9 THC after 8 h.

Counting back the trend line of the 5 donors to the time of consumption (time = 0 h), a medium contamination of THC= (978 +/- 380) ng/ml in saliva can be expected.

According to our examinations the detection of THC is assured up to 8 - 10 hours after consumption when measuring with the Rapid STAT®. Regarding an accordingly higher consumption of Cannabis positive results have also been achieved with the Rapid STAT® even up to the 16th hour after consumption.

Detection of Δ⁹-THC in saliva vs time when using the Rapid STAT



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