

Client: Example Client ABC123  
123 Test Drive  
Salt Lake City, UT 84108  
UNITED STATES

Physician: Doctor, Example

**Patient: Patient, Example**

**DOB:** 9/12/1977  
**Gender:** Male  
**Patient Identifiers:** 01234567890ABCD, 012345  
**Visit Number (FIN):** 01234567890ABCD  
**Collection Date:** 00/00/0000 00:00

**Synthetic Cannabinoid Metabolites, Qualitative, Urine**

ARUP test code 3000508

Synthetic Cannabinoid Metabolites, Urine

See Note

Analysis and Comments	Result	Units
5-fluoro-PINACA 3-methylbutanoic acid Urine Reporting Limit: 0.20 ng/mL  Synonym(s): 5F-AMB 3-methyl-butanoic acid; 5F-AMB M7 5-fluoro-PINACA 3-methylbutanoic acid (5F-AMB 3-methyl-butanoic acid) is a known or presumed metabolite of the following synthetic cannabinoid(s): 5-fluoro-MMB-PINACA (5-fluoro AMB); 5-fluoro-EMB-PINACA (5F-AEB). It may also be a metabolite of other synthetic cannabinoids with similar structures. Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)	None Det	ng/mL
4-fluoro-BINACA 3,3-dimethylbutanoic acid Urine Reporting Limit: 0.20 ng/mL  Synonym(s): 4-fluoro-BUTINACA 3,3-dimethylbutanoic acid 4-fluoro-BINACA 3,3-dimethylbutanoic acid (4-fluoro-BUTINACA 3,3-dimethylbutanoic acid) is a known or presumed metabolite of the following synthetic cannabinoid(s): 4F-MDMB BINACA (4F-MDMB-BUTINACA). It may also be a metabolite of other synthetic cannabinoids with similar structures. Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)	None Det	ng/mL
5-fluoro-PICA 3,3-dimethylbutanoic acid Urine Reporting Limit: 0.50 ng/mL  Synonym(s): 5F-MDMB-PICA metabolite 7 5-fluoro-PICA 3,3-dimethylbutanoic acid is a known or presumed metabolite of the following synthetic cannabinoid(s): 5-fluoro-MDMB-PICA. It may also be a metabolite of other synthetic cannabinoids with similar structures. Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)	None Det	ng/mL
5-fluoro-PINACA 3,3-dimethylbutanoic acid Urine Reporting Limit: 0.20 ng/mL  Synonym(s): 5F-ADB 3,3-dimethyl-butanoic acid 5-fluoro-PINACA 3,3-dimethylbutanoic acid (5F-ADB 3,3-dimethyl-butanoic acid) is a known or	None Det	ng/mL

**H=High, L=Low, \*=Abnormal, C=Critical**

Unless otherwise indicated, testing performed at:

presumed metabolite of the following synthetic cannabinoid(s): 5-fluoro-MDMB-PINACA (5F-ADB); 5-Fluoro-EDMB-PINACA.  
It may also be a metabolite of other synthetic cannabinoids with similar structures.  
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)  
MDMB-4en-PINACA butanoic acid Positive ng/mL  
Urine  
Reporting Limit: 0.20 ng/mL

Synonym(s): MDMB-4en-PINACA 3,3-dimethylbutanoic acid; MDMB-PENINACA butanoic acid  
MDMB-4en-PINACA butanoic acid is a known or presumed metabolite of the following synthetic cannabinoid(s): 4F-MDMB-4en-PINACA.  
It may also be a metabolite of other synthetic cannabinoids with similar structures.  
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)  
FUBINACA 3-methylbutanoic acid None Det ng/mL  
Urine  
Reporting Limit: 0.20 ng/mL

Synonym(s): FUB-AMB 3-methyl-butanoic acid  
FUBINACA 3-methylbutanoic acid  
(FUB-AMB 3-methyl-butanoic acid) is a known or presumed metabolite of the following synthetic cannabinoid(s): AMB-FUBINACA (AB-FUBINACA); MMB-FUBINACA (FUB-AMB); EMB-FUBINACA.  
It may also be a metabolite of other synthetic cannabinoids with similar structures.  
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)  
FUBINACA 3,3-dimethylbutanoic acid None Det ng/mL  
Urine  
Reporting Limit: 0.50 ng/mL

Synonym(s): MDMB-FUBINACA 3,3-dimethyl-butanoic acid; MDMB-FUBINACA M1  
Comment:  
Substance(s) known to interfere with the identity and/or quantity of the reported result: Quetiapine  
FUBINACA 3,3-dimethylbutanoic acid  
(MDMB-FUBINACA 3,3-dimethyl-butanoic acid; MDMB-FUBINACA M1) is a known or presumed metabolite of the following synthetic cannabinoid(s): MDMB-FUBINACA; ADB-FUBINACA (ADB-FUBINACA).  
It may also be a metabolite of other synthetic cannabinoids with similar structures.  
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)  
4-carboxy-NA-PIM None Det ng/mL  
Urine  
Reporting Limit: 0.20 ng/mL

Synonym(s): JWH-018 N-pentanoic acid  
4-carboxy-NA-PIM (JWH-018 N-pentanoic acid) is a known or presumed metabolite of the following synthetic cannabinoid(s): NA-PIM (JWH-18).  
It may also be a metabolite of other synthetic cannabinoids with similar structures.  
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)  
This test was developed and its performance characteristics determined by NMS Labs. It has not been cleared or approved by the US Food and Drug Administration.  
Testing performed at NMS Labs, Inc.  
200 Welsh Road  
Horsham, PA 19044-2208  
CLIA 39D0197898

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VERIFIED/REPORTED DATES

Procedure	Accession	Collected	Received	Verified/Reported
Synthetic Cannabinoid Metabolites, Urine	22-182-127960	00/00/0000 00:00	00/00/0000 00:00	00/00/0000 00:00

END OF CHART

**H=High, L=Low, \*=Abnormal, C=Critical**

*Unless otherwise indicated, testing performed at:*

ARUP LABORATORIES | 800-522-2787 | aruplab.com  
500 Chipeta Way, Salt Lake City, UT 84108-1221  
Jonathan R. Genzen, MD, PhD, Laboratory Director

Patient: Patient, Example  
ARUP Accession: 22-182-127960  
Patient Identifiers: 01234567890ABCD, 012345  
Visit Number (FIN): 01234567890ABCD  
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