



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Demo Report

Report Issued 07/22/2019 06:42
Last Report Issued 06/11/2019 09:00

88888
Clinical Example Report
Attn: Example Reports
200 Welsh Road
Horsham, PA 19044

Patient Name 8054B-POS
Patient ID 8054B-POS
Chain 19000999
Age Not Given DOB Not Given
Gender Not Given
Workorder 19000999
Received 06/11/2019 08:35

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS
Container Type Clear vial

Collect Dt/Tm Not Given
Source Not Given

Approx Vol/Weight Not Given

Receipt Notes None Entered

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes

8054B Postmortem, Expanded with NPS, Blood

Analysis by Enzyme-Linked Immunosorbent Assay (ELISA)

Table with 4 columns: Substance, Result, Units, Reporting Limit. Rows include Salicylates, Cannabinoids, Barbiturates, and Gabapentin.

Analysis by Headspace Gas Chromatography (GC)

Table with 4 columns: Substance, Result, Units, Reporting Limit. Row includes Ethanol.

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>Ethyl alcohol (ethanol, drinking alcohol) is a central nervous system depressant and can cause effects such as impaired judgment, reduced alertness and impaired muscular coordination. Ethanol can also be a product of decomposition or degradation of biological samples.</p>				
Blood Alcohol Concentration (BAC)	0.085	g/100 mL	0.010	
Methanol	85	mg/dL	5.0	
<p>Synonym(s): Methyl Alcohol</p> <p>Endogenous blood levels of methanol from metabolic and dietary sources are approximately 0.15 mg/dL.</p> <p>Exposure to 800 ppm methanol for 8 hours produced a maximum average blood methanol concentration of 3.1 mg/dL.</p>				
Isopropanol	85	mg/dL	5.0	
<p>Synonym(s): Isopropyl Alcohol</p> <p>Three workers exposed to 191 - 200 ppm isopropanol in air had blood isopropanol concentrations <1 mg/dL; acetone levels were 4 - 16 mg/dL during the exposure. After a sponge bath with isopropanol, one adult had a blood isopropanol concentration of 10 mg/dL.</p> <p>In a study of 31 isopropanol deaths, postmortem blood concentrations ranged from 10 to 250 mg/dL (mean, 140 mg/dL) and acetone blood concentrations ranged from 40 - 300 mg/dL (mean, 170 mg/dL).</p>				
Acetone	85	mg/dL	5.0	
<p>Reported normal endogenous acetone levels in blood are up to 3 mg/dL. Levels associated with diabetic or fasting ketoacidosis range from 10 - 70 mg/dL. After exposure to 100 and 500 ppm acetone for 2 hr, reported blood acetone concentrations peaked at 2 and 10 mg/dL, respectively. A blood level of 250 mg/dL was reported in an individual who became lethargic following ingestion of acetone.</p>				
<p>Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry QTRAP (LC-MS/MS QTRAP)</p>				
AMB-FUBINACA	See Comment	ng/mL	1.0	

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Synonym(s): N-(1-amino-3-methyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide AB-FUBINACA				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
4-cyano-CUMYL-BINACA	See Comment	ng/mL	0.10	
Synonym(s): 1-(4-cyanobutyl)-N-(1-methyl-1-phenylethyl)-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
ADMB-FUBICA	See Comment	ng/mL	1.0	
Synonym(s): ADB-FUBICA; N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
ADMB-FUBINACA	See Comment	ng/mL	1.0	
Synonym(s): ADB-FUBINACA; N-(1-Amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
5-fluoro-QU-PINAC	See Comment	ng/mL	0.10	
Synonym(s): 1-(5-fluoropentyl)-8-quinolinyl ester-1H-indazole-3-carboxylic acid; 5-fluoro NPB 22				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MMB-FUBICA	See Comment	ng/mL	1.0	
Synonym(s): N-[[1-[(4-fluorophenyl)methyl]-1H-indol-3-yl]carbonyl]-L-valine; methyl ester				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
5-fluoro-MMB-PINACA	See Comment	ng/mL	0.050	
Synonym(s): 5-fluoro AMB; N-[[1-(5-fluoropentyl)-1H-indazol-3-yl]carbonyl]-L-valine; methyl ester				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>This analyte has demonstrated instability under certain storage conditions which may be dependent upon matrix, pH, collection tube, and storage temperature. Negative results should be interpreted with caution.</p>				
4-fluoro-MDMB-BINACA	See Comment	ng/mL	0.10	
<p>Synonym(s): 4-fluoro-MDMB-BUTINACA; methyl (S)-2-(1-(4-fluorobutyl)-1H-indazole-3-carboxamido)-3,3-dimethylbutanoate</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
5-fluoro-MDMB-PICA	See Comment	ng/mL	0.10	
<p>Synonym(s): N-[[1-(5-fluoropentyl)-1H-indol-3-yl]carbonyl]-3-methyl-L-valine; methyl ester</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
MMB-FUBINACA	See Comment	ng/mL	0.10	
<p>Synonym(s): FUB-AMB; methyl (1-(4-fluorobenzyl)-1H-indazole-3-carbonyl)-L-valinate</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p> <p>This analyte has demonstrated instability under certain storage conditions which may be dependent upon matrix, pH, collection tube, and storage temperature. Negative results should be interpreted with caution.</p>				
CUMYL-THPINACA	See Comment	ng/mL	0.10	
<p>Synonym(s): N-(1-methyl-1-phenylethyl)-1-[[tetrahydro-2H-pyran-4-yl)methyl]-1H-indazole-3-carboxamide</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
MDMB-FUBICA	See Comment	ng/mL	0.10	
<p>Synonym(s): N-[[1-[(4-fluorophenyl)methyl]-1H-indol-3-yl]carbonyl]-3-methyl-L-valine; methyl ester</p> <p>Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).</p>				
5-fluoro-MDMB-PINACA / 5-fluoro-EMB-PINACA	See Comment	ng/mL	0.20	
<p>Synonym(s): 5F-ADB/5F-AEB; N-[[1-(5-fluoropentyl)-1H-indazol-3-yl]carbonyl]-3-methyl-L-valine; methyl ester/ ethyl (1-(5-fluoropentyl)-1H-indazole-3-carbonyl)-L-valinate</p>				

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
AMB-CHMINACA	See Comment	ng/mL	1.0	
Synonym(s): AB-CHMINACA; N-[(1S)-1-(Aminocarbonyl)-2-methylpropyl]-1-(cyclohexylmethyl)-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MDMB-FUBINACA / EMB-FUBINACA	See Comment	ng/mL	0.10	
Synonym(s): 1-methoxy-3,3-dimethyl-1-oxobutan-2-yl 1-(cyclohexylmethyl)-1H-indazole-3-carboxylate/ethyl (1-(4-fluorobenzyl)-1H-indazole-3-carbonyl)-L-valinate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
NA-FUBIM	See Comment	ng/mL	0.20	
Synonym(s): (1-(4-fluorobenzyl)-1H-indol-3-yl)(naphthalen-1-yl)methanone; FUB-JWH-018				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
5-fluoro-EDMB-PINACA	See Comment	ng/mL	0.10	
Synonym(s): ethyl (S)-2-(1-(5-fluoropentyl)-1H-indazole-3-carboxamido)-3,3-dimethylbutanoate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
ADMB-CHMINACA	See Comment	ng/mL	0.10	
Synonym(s): ADB-CHMINACA; MAB-CHMINACA; N-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-(cyclohexylmethyl)-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MMB-CHMICA	See Comment	ng/mL	0.10	
Synonym(s): methyl (1-(cyclohexylmethyl)-1H-indole-3-carbonyl)-L-valinate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
5-fluoro-NA-PIC	See Comment	ng/mL	0.10	
Synonym(s): NM-2201; naphthalen-1-yl 1-(5-fluoropentyl)-1H-indole-3-carboxylate				

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MDMB-CHMICA	See Comment	ng/mL	0.10	
Synonym(s): N-[[1-(cyclohexylmethyl)-1H-indol-3-yl]carbonyl]-3-methyl-L-valine; methyl ester				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MMB-CHMINACA	See Comment	ng/mL	0.20	
Synonym(s): MA-CHMINACA; methyl (1-(cyclohexylmethyl)-1H-indazole-3-carbonyl)-L-valinate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
NA-FUBIC	See Comment	ng/mL	1.0	
Synonym(s): 1-[(4-fluorophenyl)methyl]-1H-indole-3-carboxylic acid, 1-naphthalenyl ester; FDU-PB-22				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MDMB-CHMINAC	See Comment	ng/mL	0.10	
Synonym(s): MO-CHMINACA; N-(1-methyl-1-phenylethyl)-1-[(tetrahydro-2H-pyran-4-yl)methyl]-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
ADAMANTYL-FUBINACA	See Comment	ng/mL	0.20	
Synonym(s): FUB-AKB48; N-((3s,5s,7s)-adamantan-1-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				
MDMB-CHMCZCA	See Comment	ng/mL	0.10	
Synonym(s): methyl (S)-2-(9-(cyclohexylmethyl)-9H-carbazole-3-carboxamido)-3,3-dimethylbutanoate				
Comment: Based on this screening result, confirmation testing was performed. Refer to the confirmation test result(s).				

Analysis by High Performance Liquid Chromatography/Time of Flight-Mass Spectrometry (LC/TOF-MS)

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Scope Statement	See Comment			
Comment: The following is a general list of compound classes included in this screen. The detection of any specific analyte is concentration-dependent. Note, not all known analytes in each specified compound class are included. Some specific analytes outside these classes are also included. For a detailed list of all analytes and reporting limits, please contact NMS Labs. Amphetamines, Anticonvulsants, Antidepressants, Antihistamines, Antipsychotic Agents, Benzodiazepines, CNS Stimulants, Cocaine and Metabolites, Hallucinogens, Hypnotics, Hypoglycemics, Muscle Relaxants, Non-Steroidal Anti-Inflammatory Agents, Opiates and Opioids.				
50001B Salicylate Confirmation, Blood				
Analysis by High Performance Liquid Chromatography/Tandem Mass Spectrometry (LC-MS/MS)				
Salicylate	50	mcg/mL	5.0	
Analgesic range: 20 - 100 mcg/mL. Anti-inflammatory range: 150 - 300 mcg/mL. Toxic: Greater than 300 mcg/mL.				
50011B Barbiturates Confirmation, Blood				
Analysis by Gas Chromatography/Mass Spectrometry (GC/MS)				
Butabarbital	5.0	mcg/mL	0.20	
Synonym(s): Butisol Sodium Plasma concentrations of 2 - 3 mcg/mL produce sedation and plasma concentrations of 25 mcg/mL produce sleep in most patients. Plasma concentrations of greater than 30 mcg/mL may produce coma and plasma concentrations in excess of 50 mcg/mL are potentially lethal.				
Butalbital	5.0	mcg/mL	0.20	

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
<p>A single oral 100 mg dose resulted in a mean peak blood concentration of 2.1 mcg/mL (range, 1.7 - 2.6 mcg/mL) at 2 hours, with a decline to 1.5 mcg/mL (range, 1.3 - 1.7 mcg/mL) by 24 hours. Potentially toxic at plasma concentrations greater than 10 mcg/mL.</p>				
Amobarbital	5.0	mcg/mL	0.20	
<p>Following a single oral administration of 120 mg, serum concentrations peaked at about 1.8 mcg/mL at 2 hours, and declined slowly thereafter with a half-life of approximately 24 hours. Potentially toxic at plasma concentrations greater than 9 mcg/mL.</p>				
Pentobarbital	5.0	mcg/mL	0.20	
<p>Peak serum concentrations of 1.2 - 3.1 mcg/mL were produced 0.5 - 2.0 hours after a 100 mg oral dose and peak serum concentrations of 3 mcg/mL were produced 6 min. following a 100 mg IV dose. Potentially toxic at blood concentrations greater than 10 mcg/mL.</p>				
Secobarbital	5.0	mcg/mL	0.20	
<p>Synonym(s): Seconal®</p> <p>A 3.3 mg/kg oral dose (approx. 230 mg/70 kg) produced a mean peak blood concentration of 2.0 mcg/mL (range, 1.8 - 2.2 mcg/mL) at 3 hours, diminishing to 1.3 mcg/mL by 20 hours and 0.8 mcg/mL by 40 hours. Potentially toxic at blood concentrations greater than 8 mcg/mL.</p>				
Phenobarbital	5.0	mcg/mL	0.50	
<p>Synonym(s): Luminal®</p> <p>Serum/plasma concentrations of 10 - 30 mcg/mL are generally considered desirable when given as an anticonvulsant. A blood/plasma ratio of 0.81 has been reported.</p>				
<p>52144B Gabapentin Confirmation, Blood</p>				
<p>Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)</p>				
Gabapentin	50	mcg/mL	1.0	
<p>Synonym(s): Neurontin®</p>				

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
Target anti-epileptic range in refractory patients: 2.0 - 20 mcg/mL.				
52198B Cannabinoids Confirmation, Blood				
Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS)				
11-Hydroxy Delta-9 THC Synonym(s): Active Metabolite 11-Hydroxy Delta-9 THC is an active intermediate metabolite of tetrahydrocannabinol (THC) the active component of marijuana. Usual peak levels: Less than 10% of THC levels after smoking.	50	ng/mL	1.0	
Delta-9 Carboxy THC Synonym(s): Inactive Metabolite Usual peak levels in Serum for 1.75% or 3.55% THC marijuana cigarettes: 10 - 101 ng/mL about 32 to 240 minutes after beginning smoking, with a slow decline. Usually not detectable after passive inhalation.	50	ng/mL	5.0	
Delta-9 THC Synonym(s): Active Ingredient of Marijuana THC concentrations in blood are usually about one-half of serum/plasma concentrations. Usual peak levels in serum for 1.75% or 3.55% THC marijuana cigarettes: 50 - 270 ng/mL at 6 to 9 minutes after beginning smoking, decreasing to less than 5 ng/mL by 2 hrs.	50	ng/mL	0.50	
52250B Alcohols and Acetone Confirmation, Blood				
Analysis by Headspace Gas Chromatography (GC)				
Ethanol Synonym(s): Ethyl Alcohol	Confirmed	mg/dL	10	
Methanol Synonym(s): Methyl Alcohol	Confirmed	mg/dL	5.0	
Isopropanol	Confirmed	mg/dL	5.0	

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains entries for Isopropyl Alcohol, 5970B Synthetic Cannabinoids Confirmation (2019 Qualitative), 5-fluoro-MMB-PINACA, CUMYL-THPINACA, and MDMB-FUBICA.

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
 Phone: (215) 657-4900 Fax: (215) 657-2972
 e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
MMB-FUBINACA Synonym(s): FUB-AMB; methyl (1-(4-fluorobenzyl)-1H-indazole-3-carbonyl)-L-valinate MMB-FUBINACA is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. It binds to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana. This analyte has demonstrated instability under certain storage conditions which may be dependent upon matrix, pH, collection tube, and storage temperature. Negative results should be interpreted with caution.	Positive	ng/mL	0.10	
5-fluoro-MDMB-PINACA / 5-fluoro-EMB-PINACA Synonym(s): methyl ester/ ethyl (1-(5-fluoropentyl)-1H-indazole-3-carbonyl)-L-valinate; N-[[1-(5-fluoropentyl)-1H-indazol-3-yl]carbonyl]-3-methyl-L-valine; 5F-ADB/5F-AEB 5-fluoro-MDMB-PINACA and 5-fluoro-EMB-PINACA are synthetic cannabinoid drugs. These drugs are typically sprayed on botanical material and smoked, although they can be ingested in liquid or powder form. They bind to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana. This test does not differentiate between these isomeric compounds.	Positive	ng/mL	0.20	
MMB-FUBICA Synonym(s): methyl ester; N-[[1-[(4-fluorophenyl)methyl]-1H-indol-3-yl]carbonyl]-L-valine MMB-FUBICA is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. No studies have been performed to evaluate the pharmacological effects of this compound.	Positive	ng/mL	1.0	
MDMB-FUBINACA / EMB-FUBINACA Synonym(s): 1-methoxy-3,3-dimethyl-1-oxobutan-2-yl 1-(cyclohexylmethyl)-1H-indazole-3-carboxylate/ ethyl (1-(4-fluorobenzyl)-1H-indazole-3-carbonyl)-L-valinate	Positive	ng/mL	0.10	

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains rows for 5-fluoro-EDMB-PINACA, NA-FUBIM, 5-fluoro-QU-PINAC, and MMB-CHMICA with detailed analysis notes and results.

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include MMB-CHMICA, NA-FUBIC, MDMB-CHMICA, 5-fluoro-NA-PIC, and MMB-CHMINACA with their respective results and reporting limits.

Results for sample 19000999-001 are continued on next page



Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Analysis and Comments	Result	Units	Reporting Limit	Notes
MMB-CHMINACA is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. It binds to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana.				
MDMB-CHMINAC	Positive	ng/mL	0.10	
Synonym(s): N-(1-methyl-1-phenylethyl)-1-[(tetrahydro-2H-pyran-4-yl)methyl]-1H-indazole-3-carboxamide; MO-CHMINACA				
MDMB-CHMINAC is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. No studies have been performed to evaluate the pharmacological effects of this compound. It binds to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana.				
ADAMANTYL-FUBINACA	Positive	ng/mL	0.20	
Synonym(s): N-((3s,5s,7s)-adamantan-1-yl)-1-(4-fluorobenzyl)-1H-indazole-3-carboxamide; FUB-AKB48				
ADAMANTYL-FUBINACA is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. It binds to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana.				
MDMB-CHMCZCA	Positive	ng/mL	0.10	
Synonym(s): methyl (S)-2-(9-(cyclohexylmethyl)-9H-carbazole-3-carboxamido)-3,3-dimethylbutanoate				
MDMB-CHMCZCA is one of many synthetic cannabinoid drugs. The drug is typically sprayed on botanical material and smoked, although it can be ingested in liquid or powder form. It binds to and demonstrates functional activity at the same brain receptor as THC, the active component of marijuana.				

5971B Synthetic Cannabinoids Confirmation 2019 (Qualitative), Blood

Analysis by High Performance Liquid Chromatography/
Tandem Mass Spectrometry (LC-MS/MS)

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Rows include AMB-FUBINACA, ADMB-FUBINACA, ADMB-FUBICA, 4-cyano-CUMYL-BINACA, and AMB-CHMINACA with their respective results and descriptions.

Results for sample 19000999-001 are continued on next page



NMS Labs

CONFIDENTIAL

200 Welsh Road, Horsham, PA 19044-2208
Phone: (215) 657-4900 Fax: (215) 657-2972
e-mail: nms@nmslabs.com

Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Sample ID 19000999-001
Matrix Blood
Patient Name 8054B-POS
Patient ID 8054B-POS

Collect Dt/Tm Not Given
Source Not Given

Table with 5 columns: Analysis and Comments, Result, Units, Reporting Limit, Notes. Contains entries for 4-fluoro-MDMB-BINACA and 5-fluoro-MDMB-PICA.