AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Cannabinoids

CS0449_212005-011_C

Client Sample ID: 6004202-002

Sample Description: Humble Orange 25 mg/mL

[redacted]

Receive sample: 06-Jan-21

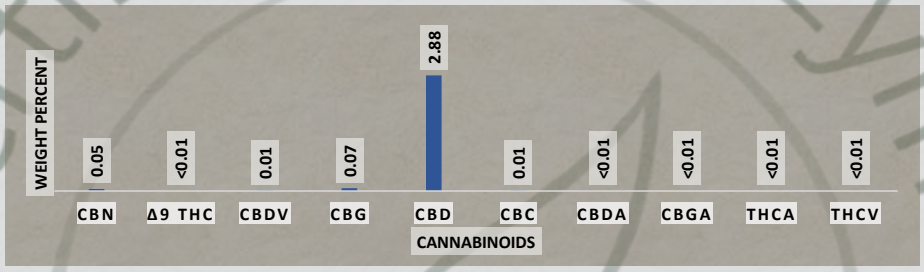
Initiate analyses: 06-Jan-21

Analyst:	Analyst Signature:	Analyst Date:
Kara Pierce	Kara Pierce (Jan 22, 2021 14:53 EST)	Jan 22, 2021
Reviewed by:	**Reviewer Signature:**	**Reviewer Date:**
Tonya Powell	Tonya Powell	Jan 22, 2021

Test Type: Total Cannabinoid Profile

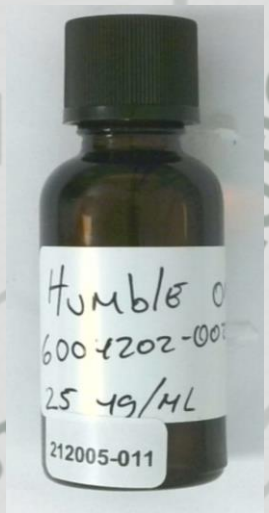
Technical Procedure: TP A0033 & A0049

Results:



Cannabinoid	MoU (+/-)	% Weight	Concentration (mg/mL)
CBN	0.002	0.05	0.47
Δ9 THC	NA	<0.01	<0.096
CBDV	0.0005	0.01	0.12
CBG	0.0026	0.07	0.63
CBD	0.115	2.88	27.62
CBC	0.0006	0.01	0.13
CBDA	NA	<0.01	<0.096
CBGA	NA	<0.01	<0.096
THCA	NA	<0.01	<0.096
THCV	NA	<0.01	<0.096
*** total THC**		**<0.01**	**<0.096**
*** total CBD**		**2.88**	**27.62**
*** total CBG**		**0.07**	**0.63**
total		**3.02**	**28.97**
ratio: Total CBD/THC			**NA**

density = 0.96



* total THC is calculated by Δ9 THC + 0.877xTHCA *total CBD is calculated by CBD + 0.877xCBDA

*total CBG is calculated by CBG + 0.878xCBGA

Avazyme, Inc is ISO/IEC 17025:2017 accredited by PJLA (accreditation # 101161) for Microbiological and Chemical Testing

MoU "measurement of uncertainty"

Concentration of cannabinoids were determined by Shimadzu LC2030 Plus with an Avazyme intra lab validated method utilizing certified reference standards for each chemical analyzed.

The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted.

Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study, and will not be liable for any loss or damage resulting from such use.

PJLA Testing
ISO/IEC 17025:2017
Accreditation # 101161

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Heavy Metals

CS0449_212005-011_HM

Client Sample ID: 6004202-002
Sample Description: Humble Orange 25 mg/mL
Receive sample: 06-Jan-21
Initiate analyses: 11-Jan-21

[redacted]

Analyst: Helen Goudreau	**Analyst Signature:**	**Analyst Date:** Jan 22, 2021
Reviewed by: Tia Young	**Reviewer Signature:**	**Reviewer Date:** Jan 22, 2021

Test Type: Heavy Metal Content
Technical Procedure: A0036-01

Results:

Chemical Analyzed	Concentration (µg/g)
Arsenic (As 75)	0.002
Cadmium (Cd 111)	<0.001
Cadmium (Cd 114)	<0.001
Mercury (Hg 200)	<0.001
Mercury (Hg 202)	<0.001
Lead (Pb 206)	<0.001
Lead (Pb 207)	<0.001
Lead (Pb 208)	<0.001

PJLA Testing
ISO/IEC 17025:2017
Accreditation # 101161

Concentration of metals was determined by ICP-MS with an Avazyme method utilizing certified reference standards for each chemical analyzed.
The result applies to the sample listed on this certificate. Avazyme cannot guarantee this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols.
Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study, and will not be liable for any loss or damage resulting from such use.

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS
CS0449_212005-011_M

Mycotoxins

Client Sample ID: 6004202-002 — CS0449

Sample Description: Humble Orange 25 mg/mL

Receive sample: 06-Jan-21

Initiate analyses: 08-Jan-21

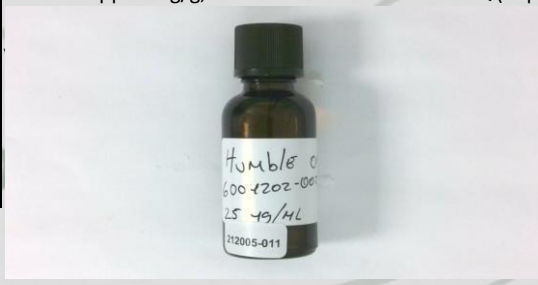
Analyst: Jacob Edwards	**Signature:** Jacob Edwards (Jan 22, 2021 14:27 EST)	**Date:** Jan 22, 2021
Reviewed by: Harris Middlesworth	**Signature:**	**Date:** Jan 22, 2021

Analysis requested: **Analysis of concentration of mycotoxins in customer supplied material**

Results:

Mycotoxin	Concentration Detected	Mycotoxin	Concentration Detected
B1 Fumonisin	ND	Cytochalasin J	ND
B2 Fumonisin	ND	Cytochalasin H	ND
15-Acetyl-DON	ND	19,20-Epoxycytochalasin C	ND
3-Acetyl-DON	ND	19,20-Epoxycytochalasin D	ND
Deoxynivalenol	ND	Chaetoglobosin A	ND
Nivalenol	ND	Dihydrocytochalasin B	ND
Cytochalasin B	ND	Neosolaniol	ND
Cytochalasin D	ND	Monoacetoxyscirpenol	ND
Cytochalasin A	ND	HT2-Toxin	ND
Cytochalasin E	ND	Ochratoxin B	ND
Cytochalasin C	ND	Alternariol	ND
Aflatoxin G2	ND	Alternariol ME	ND
Aflatoxin G1	ND	Sterigmatocystin	ND
Aflatoxin B1	ND	T2-Tetraol	ND
Aflatoxin B2	ND		
Zearalenone	ND		
Tenuazonic Acid	ND		
Diacetoxyscirpenol	ND		
Moniliformin	ND		
T2	ND		
Ochratoxin A	ND		
Fusarenone X	ND		

ppb = ng/g, ND= Not Detected Above LOQ (10ppb)



The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted. Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study and will not be liable for any loss or damage resulting from such use.

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212005-011_P

Pesticides

[redacted]

Client Sample ID: 6004202-002

Sample Description Humble Orange 25 mg/mL

Received sample: 06-Jan-21

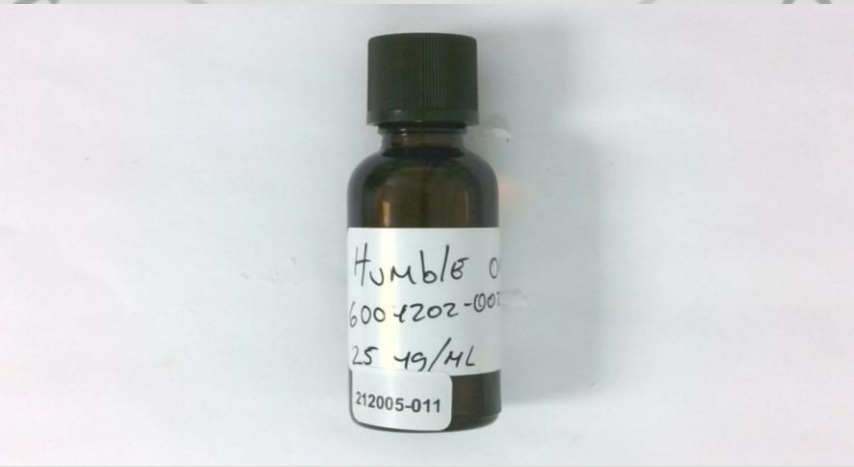
Initiated analyses: 09-Jan-21

Analyst: Harris Middlesworth	Signature:	Date: Jan 22, 2021
Reviewed Caroline Vieregge	Signature:	Date: Jan 25, 2021

Analysis of concentration (conc.) of Pesticides in customer supplied material with UHPLC-MS/MS.

Results

Pesticide	Concentration (ppb)
NO PESTICIDE DETECTED	None*



* None = not detected at or above the LOQ (limit of quantitation); LOQs on pages 2 and 3

Avazyme, Inc is ISO/IEC 17025:2017 accredited by PJLA (accreditation # 101161) for Microbiological and Chemical Testing

The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted. Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study and will not be liable for any loss or damage resulting from such use.

PJLA Testing ISO/IEC 17025:2017 Accreditation # 101161

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212005-011_P

Pesticides

[redacted]

Client Sample ID: 6004202-002

[redacted]

Sample Description: Humble Orange 25 mg/mL

[redacted]

Pesticides in the method and the limits of quantitation (LOQ)

Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb
2,4-D	10	Carbofuran	10	Dimethomorph II	10	Fludioxonil	10
3-hydroxycarbofuran	30	Carboxin	10	Dimoxystrobin	10	Flufenacet	10
6-Benzylaminopurine	10	Carfentrazone-ethyl	100	Diniconazole	10	Flufenoxuron	10
Acephate	10	Chlorantraniliprole	10	Dinotefuran	10	Flumetralin	10
Acequinocyl	100	Chlorfenapyr	10	Dioxacarb	10	Flumioxazin	100
Acetamiprid	10	Chlorfluazuron	100	Diuron	10	Fluometuron	10
Acibenzolar-S-methyl	100	Chlorothalonil	10	Emamectin B1a	10	Fluopyram	10
Aldicarb	300	Chlorotoluron	10	Endosulfan sulfate	10	Fluoxastrobin	10
Aldicarb Sulfone	10	Chloroxuron	10	Epoxiconazole	30	Fluquinconazole	10
Aldicarb Sulfoxide	10	Chlorpyrifos	10	Eprinomectin	30	Fluridone	10
Allethrin	30	Cinerin I	300	Etaconazole I	10	Flusilazole	10
Ametryn	10	Cinerin II	300	Etaconazole II	10	Flutolanil	10
Aminocarb	10	Clethodim I	100	Ethiofencarb	10	Flutraifol	10
Aminopyralid	30	Clethodim II	10	Ethiprole	10	Fluxapyroxad	10
Amitraz	30	Clofentazine	10	Ethirimol	10	Fomesafen	10
Atrazine	10	Clomazone	10	Ethoprophos	10	Forchlorfenuron	10
Azadirachtin	10	Clothianidin	10	Etofenprox	10	Formetanate	10
Azoxystrobin	10	Coumaphos	10	Etoxazole	10	Fuberdiazole	10
Benalaxyl	10	Cyazofamid	10	Etridiazole	30	Furalaxyl	10
Bendiocarb	10	Cycluron	10	Fenamidone	10	Furathiocarb	10
Benzovindiflupyr	10	Cymoxanil	10	Fenarimol	30	Hexaconazole	10
Benzoximate	100	Cypermethrin	300	Fenazaquin	10	Hexaflumuron	10
Bifenazate	30	Cyproconazole I	10	Fenbuconazole	10	Hexythiazox	10
Bifenthrin	30	Cyproconazole II	10	Fenhexamid	10	Imazalil	10
Bitertanol	30	Cyprodinil	10	Fenobucarb	10	Imidacloprid	10
Boscalid	30	Cyromazine	10	Fenoxycarb	10	Indoxacarb	10
Bromuconazole I	10	Daminozide	100	Fenpropimorph	10	Ipconazole	10
Bromuconazole II	10	Deltamethrin	100	Fenpyroximate	10	Iprodione	10
Bupirimate	10	Desmedipham	10	Fensulfothion	10	Iprovalicarb	30
Buprofezin	10	Diazinon	10	Fenthion	10	Isoprocarb	10
Butafenacil	10	Dichlorvos	10	Fenuron	10	Isoproturon	10
Butocarboxim	30	Dicrotophos	10	Fipronil	10	Jasmolin I	10
Butoxycarboxim	30	Diethofencarb	10	Fipronil Desulfinyl	10	Jasmolin II	10
Captan	30	Difenoconazole	10	Fipronil Sulfone	10	Kinoprene	300
Carbaryl	10	Diflubenzuron	10	Flonicamid	10	Kresoxym-methyl	30
Carbendazim	10	Dimethoate	10	Fluazifop	10	Linuron	10
Carbetamide	10	Dimethomorph I	10	Fluazinam	10	Lufenuron	10

Avazyme, Inc is ISO/IEC 17025:2017 accredited by PJLA (accreditation # 101161) for Microbiological and Chemical Testing

PJLA Testing ISO/IEC 17025:2017 Accreditation # 101161

The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted. Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study and will not be liable for any loss or damage resulting from such use.

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

CS0449_212005-011_P

Pesticides

[redacted]

Client Sample ID: 6004202-002

Sample Description: Humble Orange 25 mg/mL

Pesticides in the method and the limits of quantitation (LOQ)

Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb	Pesticide	LOQ ppb
Malathion	10	Oxathiapiprolin	10	Spinetoram J	10	Vamidothion	10
Mandipropamid	10	Paclobutrazol	10	Spinetoram L	10	Zoxamide	10
Mefenacet	10	Penconazole	10	Spinosyn A	10		
Mepanipyrim	10	Pencycuron	10	Spinosyn D	10		
Mepronil	10	Pentachloronitrobenzene	10	Spirodiclofen	10		
Mesotrione	10	Permethrin	100	Spirotetramat	10		
Metaflumizone	10	Phenothrin	30	Spiroxamine I	10		
Metalaxyl	10	Phosmet	10	Spiroxamine II	10		
Metconazole	10	Picoxystrobin	10	Sulfentrazone	10		
Methabenzthiazuron	10	Piperonyl Butoxide	10	Tebuconazole	10		
Methamidophos	30	Pirimicarb	10	Tebufenozide	10		
Methiocarb	10	Prallethrin	10	Tebufenpyrad	10		
Methiocarb Sulfone	300	Prochloraz	10	Tebuthiuron	10		
Methiocarb Sulfoxide	10	Procymidone	300	Teflubenzuron	10		
Methomyl	10	Promecarb	10	Tembotrione	10		
Methoprotryne	10	Prometon	10	Temephos	10		
Methoxyfenozide	30	Prometryne	10	Terbumeton	10		
Methyl parathion	10	Propamocarb	300	Terbutryn	10		
Metobromuron	10	Propargite	10	Tetrachlorvinphos	10		
Metolachlor	10	Propham	100	Tetraconazole	10		
Metribuzin	10	Propiconazole	10	Tetramethrin I	100		
Mevinphos I	10	Propoxur	10	Tetramethrin II	100		
Mevinphos II	10	Prothioconazole	100	Thiabendazole	10		
Mexacarbate	30	Pymetrozine	10	Thiacloprid	10		
MGK-264 I	30	Pyracarbolid	10	Thiamethoxam	10		
MGK-264 II	30	Pyraclostrobin	10	Thidiazuron	10		
Monocrotophos	10	Pyrethrin I	30	Thiencarbazone-Methyl	10		
Monolinuron	10	Pyrethrin II	100	Thiobencarb	10		
Myclobutanil	10	Pyridaben	10	Thiophanate-methyl	10		
Naled	300	Pyrimethanil	100	Triadimefon	10		
Neburon	10	Pyriproxyfen	10	Triadimenol	10		
Nitenpyram	10	Quinoxyfen	10	Trichlorfon	10		
Novaluron	10	Resmethrin	10	Tricyclazole	10		
Nuarimol	300	Rotenone	10	Trifloxystrobin	10		
Omethoate	10	Secbumeton	10	Triflumizole	10		
Oxadixyl	10	Siduron	10	Triflumuron	10		
Oxamyl	10	Simetryn	10	Triticonazole	30		

Certified by Avazyme AGRICULTURE AND FOOD TESTING SOLUTIONS

Avazyme, Inc is ISO/IEC 17025:2017 accredited by PJLA (accreditation # 101161) for Microbiological and Chemical Testing

The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted. Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study and will not be liable for any loss or damage resulting from such use.

PJLA Testing ISO/IEC 17025:2017 Accreditation # 101161

AVAZYME

Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS

Residual Solvents

CS0449_212005-011_RS

Client Sample ID: 6004202-002
Sample Description: Humble Orange 25 mg/mL
Receive sample: 06-Jan-21
Initiate analyses: 12-Jan-21

[redacted]

Analyst: Daren Stephens	Analyst Signature:	Analyst Date: Feb 1, 2021
Reviewed by: Tia Young	Reviewer Signature:	Reviewer Date: Feb 1, 2021

Test Type: Residual Solvents
Technical Procedure: TP A0040
Results:

Chemical Analyzed	Concentration (ppm)	Low Detection Limit (ppm)
Propane	ND	5.00
n-Butane	ND	2.50
Isobutane	ND	2.50
Neopentane	ND	1.67
Methanol	ND	5.00
Ethylene oxide	ND	5.00
2-Methylbutane	ND	1.67
n-Pentane	ND	1.67
Ethanol	2025	5.00
Diethyl ether	ND	5.00
Acetone	ND	5.00
1,1-Dichloroethene	ND	5.00
Isopropanol	ND	5.00
2,2-Dimethylbutane	ND	1.00
2,3-Dimethylbutane	ND	1.00
Methylene chloride	ND	5.00
2-Methylpentane	ND	1.00
Acetonitrile	ND	20.0
3-Methylpentane	ND	1.00
n-Hexane	ND	1.00
Ethyl acetate	ND	5.00
Tetrahydrofuran	ND	5.00
Chloroform	ND	0.05
Cyclohexane	ND	5.00
Benzene	ND	0.05
1,2-Dichloroethane	ND	5.00
Isopropyl acetate	ND	5.00
n-Heptane	<5.00	5.00
Trichloroethene	ND	5.00
1,4-Dioxane	ND	5.00
Toluene	ND	5.00
Ethylbenzene	ND	1.25
m-Xylene/p-Xylene	ND	2.50
o-Xylene	ND	1.25
Cumene	ND	5.00

PJLA Testing
ISO/IEC 17025:2017
Accreditation # 101161

ND: Not Detected
Present: matched to NIST database, not confirmed by reference standard
Confirmed: present and identified by comparison to reference standard

Concentrations were determined by GC-MS with an Avazyme method utilizing certified reference standards for each chemical analyzed.
Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols.
Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study, and will not be liable for any loss or damage resulting from such use.

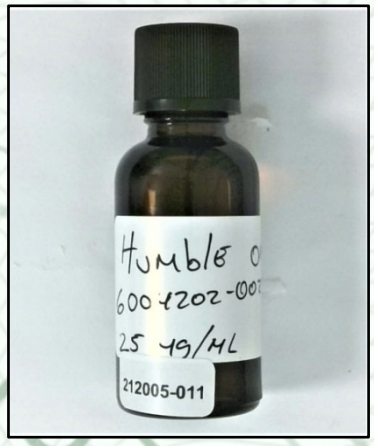
Avazyme, Inc. is ISO/IEC 17025:2017 accredited by PJLA (accreditation #101161) for Microbiological and Chemical Testing.

Avazyme, Inc. 2202 Ellis Rd Suite A, Durham, NC 27703 www.avazyme.com

Standard Pathogen Panel

AVAZYME
Agriculture and Food Testing Solutions

CERTIFICATE OF ANALYSIS # CS0449-212005-011-SP



Sponsor Sample ID: 6004202-002

Sample Description: Humble Orange 25 mg/ml

Company Name: [redacted]

Address Line 1: [redacted]

Address Line 2: [redacted]

Date Received: 06-Jan-21

Analyses Initiated: 06-Jan-21

Analyst: Brooke Brannen	Analyst Signature: Brooke Brannen (Jan 20, 2021 16:51 EST)	Analyst Date: Jan 20, 2021
Reviewer: Jen Heath	Reviewer Signature:	Reviewer Date: Jan 20, 2021

Initial Tests:

Test Name (AOAC Method Identification*)	Test Results (CFU/g)	Comments
E. coli (AOAC 991.14)	<10	None.
Coliform Count (AOAC 991.14)	<10	None.
Enterobacteriaceae Count (AOAC 2003.01)	<10	None.
S. aureus Count (AOAC 2003.11)	<10	None.
Yeast Count (AOAC 2014.05)	<10	None.
Mold Count (AOAC 2014.05)	<10	None.

***AOAC Number is a standard identification number that identifies the testing medium used.**

Test Name (Method Identification)	Test Results	Comments
Listeria (FDA BAM Chapter 10)	Negative	No secondary testing required.

Secondary Tests:

Test Name (Method Identification)	Test Status	Test Results
E. coli Confirmation (FDA BAM Ch. 4/4a ; API 20E Serological Confirmation)	Not Required	N/A
Salmonella Confirmation (AOAC 2014.01)	Not Required	N/A
Listeria Confirmation (FDA BAM Ch. 10 ; API Listeria – Serological Confirmation)	Not Required	N/A

All microbiology test systems are validated on the day of use with appropriate positive and negative controls. Avazyme cannot warrant the absolute negative presence of any microorganism, only attest that the test was carried out via appropriate methods and shows a negative result.

Testing was performed according to established AOAC, BAM, and API methods. Using these methods, none of the following organisms were detected at or above our limit of detection:

Listeria monocytogenes, *E. coli* O157:H7, *Staphylococcus aureus*, and *Salmonella enterica*.

PJLA Testing
ISO/IEC 17025:2017
Accreditation # 101161

Avazyme, Inc is ISO/IEC 17025:2017 accredited by PJLA (accreditation # 101161) for Microbiological and Chemical Testing.

The result applies only to the sample listed on this certificate. Avazyme cannot guarantee that this sample is representative of the product/lot as a whole. Avazyme warrants that this study was performed in accordance with appropriate laboratory research practices and protocols for the sample submitted. Avazyme is not responsible for Sponsor's use of the information or concepts generated as part of the study and will not be liable for any loss or damage resulting from such use.