

**SAMPLE NAME: RELAX**

Infused, Liquid Edible

**CULTIVATOR / MANUFACTURER**

**Business Name:**

**License Number:**

**Address:**

**DISTRIBUTOR**

**Business Name:** Kota Botanics

**License Number:**

**Address:** 2511 Kirsten Ln. Ste 104  
Fargo ND 58104



**SAMPLE DETAIL**

**Batch Number:** KO-RELAX-B6-0001

**Sample ID:** 201104W009

**Date Collected:** 11/04/2020

**Date Received:** 11/04/2020

**Batch Size:**

**Sample Size:** 1.0 units

**Unit Mass:** 30 milliliters per Unit

**Serving Size:**



Scan QR code to verify authenticity of results.

**CANNABINOID ANALYSIS - SUMMARY**

**Total THC:** 38.220 mg/unit

**Total CBD:** 828.780 mg/unit

**Sum of Cannabinoids:** 913.230 mg/unit

**Total Cannabinoids:** 913.230 mg/unit

Total THC/CBD is calculated using the following formulas to take into account the loss of a carboxyl group during the decarboxylation step:  
 Total THC =  $\Delta 9\text{THC} + (\text{THCa} \cdot 0.877)$   
 Total CBD =  $\text{CBD} + (\text{CBDa} \cdot 0.877)$   
 Sum of Cannabinoids =  $\Delta 9\text{THC} + \text{THCa} + \text{CBD} + \text{CBDa} + \text{CBG} + \text{CBGa} + \text{THCV} + \text{THCVa} + \text{CBC} + \text{CBCa} + \text{CBDV} + \text{CBDVa} + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$   
 Total Cannabinoids =  $(\Delta 9\text{THC} + 0.877 \cdot \text{THCa}) + (\text{CBD} + 0.877 \cdot \text{CBDa}) + (\text{CBG} + 0.877 \cdot \text{CBGa}) + (\text{THCV} + 0.877 \cdot \text{THCVa}) + (\text{CBC} + 0.877 \cdot \text{CBCa}) + (\text{CBDV} + 0.877 \cdot \text{CBDVa}) + \Delta 8\text{THC} + \text{CBL} + \text{CBN}$

**Moisture:** NT

**Density:** 0.9494 g/mL

**Viscosity:** NT

**SAFETY ANALYSIS - SUMMARY**

**$\Delta 9\text{THC}$  per Unit:** ✔ PASS

**Foreign Material:** NT

**Water Activity:** NT

**Vitamin E Acetate:** NT

**Pesticides:** NT

**Mycotoxins:** NT

**Residual Solvents:** NT

**Heavy Metals:** NT

**Microbial Impurities (PCR):** ✔ PASS

**Microbial Impurities (Plating):** NT

**TERPENOID ANALYSIS - SUMMARY**

36 TESTED, TOP 3 HIGHLIGHTED

● Linalool 2.76 mg/g

● Ocimene 0.63 mg/g

●  $\beta$  Caryophyllene 0.20 mg/g


For quality assurance purposes. Not a Pre-Harvest Hemp Lab Test Report. These results relate only to the sample included on this report. This report shall not be reproduced, except in full, without written approval of the laboratory.

**Sample Certification:** California Code of Regulations Title 16 Effect Date January 16, 2019. Authority: Section 26013, Business and Professions Code. Reference: Sections 26100, 26104 and 26110, Business and Professions Code.

**Decision Rule:** Statements of conformity (e.g. Pass/Fail) to specifications are made in this report without taking measurement uncertainty into account. Where statements of conformity are made in this report, the following decision rules are applied: PASS - Results within limits/specifications, FAIL - Results exceed limits/specifications.

**References:** limit of detection (LOD), limit of quantification (LOQ), not detected (ND), not tested (NT)

  
 LQC verified by: Josh Antunovich  
 Date: 11/24/2020

  
 Approved by: Josh Wurzer, President  
 Date: 11/24/2020



CANNABINOID TEST RESULTS - 11/06/2020

Tested by high-performance liquid chromatography with diode-array detection (HPLC-DAD).

Method: QSP 1157 - Analysis of Cannabinoids by HPLC-DAD

**TOTAL THC: 38.220 mg/unit**

Total THC ( $\Delta 9\text{THC} + 0.877 * \text{THCa}$ )

**TOTAL CBD: 828.780 mg/unit**

Total CBD ( $\text{CBD} + 0.877 * \text{CBDa}$ )

**TOTAL CANNABINOIDS: 913.230 mg/unit**

Total Cannabinoids (Total THC) + (Total CBD) + (Total CBG) + (Total THCV) + (Total CBC) + (Total CBDV) +  $\Delta 8\text{THC}$  + CBL + CBN

**TOTAL CBG: 11.670 mg/unit**

Total CBG ( $\text{CBG} + 0.877 * \text{CBGa}$ )

**TOTAL THCV: ND**

Total THCV ( $\text{THCV} + 0.877 * \text{THCVa}$ )

**TOTAL CBC: 28.860 mg/unit**

Total CBC ( $\text{CBC} + 0.877 * \text{CBCa}$ )

**TOTAL CBDV: 3.900 mg/unit**

Total CBDV ( $\text{CBDV} + 0.877 * \text{CBDVa}$ )

COMPOUND	LOD/LOQ (mg/mL)	MEASUREMENT UNCERTAINTY (mg/mL)	RESULT (mg/mL)	RESULT (%)
CBD	0.004 / 0.011	$\pm 1.3233$	27.626	2.9098
$\Delta 9\text{THC}$	0.002 / 0.005	$\pm 0.0898$	1.274	0.1342
CBC	0.003 / 0.010	$\pm 0.0398$	0.962	0.1013
CBG	0.002 / 0.005	$\pm 0.0242$	0.389	0.0410
CBDV	0.002 / 0.007	$\pm 0.0068$	0.130	0.0137
CBL	0.003 / 0.008	$\pm 0.0017$	0.035	0.0037
CBN	0.001 / 0.004	$\pm 0.0009$	0.025	0.0026
$\Delta 8\text{THC}$	0.01 / 0.02	N/A	ND	ND
THCa	0.001 / 0.002	N/A	ND	ND
THCV	0.002 / 0.008	N/A	ND	ND
THCVa	0.002 / 0.005	N/A	ND	ND
CBDa	0.001 / 0.003	N/A	ND	ND
CBDVa	0.001 / 0.003	N/A	ND	ND
CBGa	0.002 / 0.006	N/A	ND	ND
CBCa	0.001 / 0.004	N/A	ND	ND
<b>SUM OF CANNABINOIDS</b>			<b>30.441 mg/mL</b>	<b>3.2063%</b>

Unit Mass: 30 milliliters per Unit

$\Delta 9\text{THC}$ per Unit	1100 per-package limit	38.220 mg/unit	PASS
Total THC per Unit		38.220 mg/unit	
CBD per Unit		828.780 mg/unit	
Total CBD per Unit		828.780 mg/unit	
Sum of Cannabinoids per Unit		913.230 mg/unit	
Total Cannabinoids per Unit		913.230 mg/unit	

MOISTURE TEST RESULT

Not Tested
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DENSITY TEST RESULT

0.9494 g/mL
Tested 11/06/2020
Method: QSP 7870 - Sample Preparation

VISCOSITY TEST RESULT

Not Tested
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## Terpenoid Analysis

### TERPENOID TEST RESULTS - 11/07/2020

Terpene analysis utilizing gas chromatography-flame ionization detection (GC-FID). Terpenes are the aromatic compounds that endow cannabis with their unique scent and effect. Following are the primary terpenes detected.

**Method:** OSP 1192 - Analysis of Terpenoids by GC-FID

**1 Linalool**  
 A monoterpene alcohol with a fragrance that can be described as spicy, waxy, citrus and floral. It is commonly used as an insecticide against cockroaches, flies, fleas and other insects. Found in basil, lavender, cinnamon, hops, mugwort, goldenrods...etc.

**2 Ocimene**  
 A monoterpene with a fragrance that can be described as herbal, earthy, sweet with a hint of citrus. It is derived from members of the *Ocimum* genus, from which it lends its name. It also displays antifungal properties. A plant containing this terpene has been used in some traditional ayahuasca rituals and is also an important honey plant. Found in basil, tulsi, mint, oregano, parsley, some orchids, mangoes, tarragon...etc.

**3 β Caryophyllene**  
 A sesquiterpene with a fragrance that can be described as spicy, woody, dry, dusty and mildly sweet. It was one of the first organic compounds to fully synthesized in a laboratory and plays a role in the endocannabinoid system as it is a functional CB<sub>2</sub> receptor agonist. Found in black pepper, clove, hops, rosemary, black-jack, perilla, spicebush, Indian pennywort, celery, frankincense, vitex, parsley, marigold, tamarind...etc.

COMPOUND	LOD/LOQ (mg/g)	MEASUREMENT UNCERTAINTY (mg/g)	RESULT (mg/g)	RESULT (%)
Linalool	0.03 / 0.08	±0.143	2.76	0.276
Ocimene	0.03 / 0.09	±0.075	0.63	0.063
β Caryophyllene	0.02 / 0.07	±0.009	0.20	0.020
Terpineol	0.02 / 0.07	±0.014	0.13	0.013
Eucalyptol	0.03 / 0.08	±0.006	0.12	0.012
α Bisabolol	0.02 / 0.07	±0.005	0.12	0.012
Limonene	0.02 / 0.05	±0.002	0.06	0.006
Myrcene	0.04 / 0.11	N/A	<LOQ	<LOQ
Geraniol	0.02 / 0.07	N/A	<LOQ	<LOQ
Geranyl Acetate	0.02 / 0.06	N/A	<LOQ	<LOQ
α Pinene	0.03 / 0.09	N/A	ND	ND
Camphene	0.04 / 0.11	N/A	ND	ND
Sabinene	0.04 / 0.11	N/A	ND	ND
β Pinene	0.04 / 0.11	N/A	ND	ND
α Phellandrene	0.05 / 0.1	N/A	ND	ND
3 Carene	0.04 / 0.1	N/A	ND	ND
α Terpinene	0.04 / 0.1	N/A	ND	ND
γ Terpinene	0.04 / 0.1	N/A	ND	ND
Sabinene Hydrate	0.02 / 0.07	N/A	ND	ND
Fenchone	0.04 / 0.12	N/A	ND	ND
Terpinolene	0.03 / 0.09	N/A	ND	ND
Fenchol	0.03 / 0.09	N/A	ND	ND
(-)-Isopulegol	0.02 / 0.05	N/A	ND	ND
Camphor	0.1 / 0.2	N/A	ND	ND
Isoborneol	0.04 / 0.1	N/A	ND	ND
Borneol	0.1 / 0.2	N/A	ND	ND
Menthol	0.03 / 0.09	N/A	ND	ND
Nerol	0.03 / 0.09	N/A	ND	ND
R-(+)-Pulegone	0.03 / 0.09	N/A	ND	ND
α Cedrene	0.02 / 0.07	N/A	ND	ND
α Humulene	0.02 / 0.05	N/A	ND	ND
Valencene	0.01 / 0.03	N/A	ND	ND
Nerolidol	0.3 / 0.8	N/A	ND	ND
Caryophyllene Oxide	0.04 / 0.11	N/A	ND	ND
Guaiol	0.03 / 0.09	N/A	ND	ND
Cedrol	0.04 / 0.11	N/A	ND	ND
<b>TOTAL TERPENOIDS</b>			<b>4.02 mg/g</b>	<b>0.402%</b>



 **Microbial Impurities Analysis**  
 PCR AND PLATING

Analysis conducted by polymerase chain reaction (PCR) and fluorescence detection of microbial impurities.

**Method:** QSP 1221 - Analysis of Microbial Impurities

**MICROBIAL IMPURITIES TEST RESULTS (PCR) - 11/06/2020** ✔ PASS

COMPOUND	ACTION LIMIT	RESULT	RESULT
Shiga toxin-producing <i>Escherichia coli</i>	Detect	ND	PASS
<i>Salmonella</i> spp.	Detect	ND	PASS
<i>Aspergillus fumigatus</i>		NT	
<i>Aspergillus flavus</i>		NT	
<i>Aspergillus niger</i>		NT	
<i>Aspergillus terreus</i>		NT	

Analysis conducted by 3M™ Petrifilm™ and plate counts of microbial impurities.

**Method:** QSP 6794 - Plating with 3M™ Petrifilm™

**MICROBIAL IMPURITIES TEST RESULTS (PLATING)**

COMPOUND	RESULT (cfu/g)
Aerobic Plate Count	NT
Total Yeast and Mold	NT

**NOTES**

COA amended to update distributor license.

