





CV SCIENCES™

Certificate of Analysis  
September 15, 2020

**Sample ID:** FP-20-0560  
**Product Name:** CV Defense Immunity Capsule – 60ct  
**Lot #:** 09524195  
**Expiration:** 07/22  
**Storage Conditions:** Room temperature, cool, dry place.

Criteria	Specification	Test Method	cGMP requirements	Results
Fill Appearance	Free-flowing powder	Gross Organoleptic	Composition Identity	Complies
Color	White with some tan specs	Gross Organoleptic	Identity	Complies
Aroma	Umami	Gross Organoleptic	Identity	Complies
Capsule size	“00”	Gross Organoleptic	Identity	Complies
Count	NLT 60 units	Gravimetric	Composition	Complies
Micro				
TAPC	<10,000 cfu/g	3M Petrifilm	Purity	Complies
Total Yeast & Mold	<1000 cfu/g	3M Petrifilm	Purity	Complies
E.Coli	Negative in 10g	3M Petrifilm	Purity	Complies
Salmonella	Negative in 10g	3M Petrifilm	Purity	Complies
Coliforms	<1000 cfu/g	3M Petrifilm	Purity	Complies
Pesticide Residue	Passes USP chapter 561	HPLC-MS	Limits on contaminants	Complies
Residual Solvents	Passes USP chapter 467- Residual solvents	HS-GC	Limits on contaminants	Complies
Heavy Metals				
Arsenic	NMT 5 ppm	ICP MS	Limits on contaminants	Complies
Cadmium	NMT 3 ppm	ICP MS	Limits on contaminants	Complies
Lead	NMT 0.4 ppm	ICP MS	Limits on contaminants	Complies
Mercury	NMT 1 ppm	ICP MS	Limits on contaminants	Complies

  
Reviewed by  
Tim Hitchman  
Director of Operations  
Date 15 SEP 2020

  
Approved by  
Douglas MacKay  
Senior VP of Scientific & Regulatory  
Date 15 SEP 2020

## Certificate of Analysis

### CV Sciences Inc

2688 S Rainbow Blvd Suite B  
Las Vegas Nevada 89146 United States

<b>Sample Name:</b>	<b>FP-20-0560 CV Defense Immunity Capsules - 60ct EXP: 0722</b>	<b>Eurofins Sample:</b>	<b>9800904</b>
<b>Project ID</b>	CV_SCIENCE-20200826-0014	<b>Receipt Date</b>	27-Aug-2020
<b>PO Number</b>	CVd	<b>Receipt Condition</b>	Ambient temperature
<b>Lot Number</b>	09524195	<b>Login Date</b>	26-Aug-2020
<b>Sample Serving Size</b>	2 Cap	<b>Date Started</b>	27-Aug-2020
		<b>Sampled</b>	Sample results apply as received
		<b>Number Compositd</b>	20
		<b>Online Order</b>	12836-14095347

Analysis		Result	
<b>Beta Glucan</b>			
Beta Glucan		0.0885 g/Serving Size	
<b>USP 561 Pesticides Package</b>			
USP 561 Pesticides Package		USP 561 Pesticides Package	
Analysis	Limit	Result	Pass/Fail
<b>Total Content of Dithiocarbamates (DTCs) expressed as CS2</b>			
Total Content of Dithiocarbamates (DTCs) expressed as CS2	2 mg/kg	<2.00 mg/kg	Pass
<b>Bromide</b>			
Bromide, inorganic (calculated as Bromide Ion)	125 mg/kg	<125 mg/kg	Pass
<b>GC-MS/MS and LC-MS/MS Multi-Residue Analysis</b>			
Acephate	0.1 mg/kg	<0.1 mg/kg	Pass
Alachlor	0.05 mg/kg	<0.05 mg/kg	Pass
Aldrin and dieldrin (sum of)	0.05 mg/kg	<0.05 mg/kg	Pass
Azinphos-ethyl	0.1 mg/kg	<0.1 mg/kg	Pass
Azinphos-methyl	1 mg/kg	<1 mg/kg	Pass
Bromophos-ethyl	0.05 mg/kg	<0.05 mg/kg	Pass
Bromophos-methyl	0.05 mg/kg	<0.05 mg/kg	Pass
Bromopropylate	3 mg/kg	<3 mg/kg	Pass
Chlordane (sum of cis- and trans- isomers and oxychlordane)	0.05 mg/kg	<0.05 mg/kg	Pass
Chlorfenvinphos	0.5 mg/kg	<0.5 mg/kg	Pass
Chlorpyrifos-ethyl	0.2 mg/kg	<0.2 mg/kg	Pass
Chlorpyrifos-methyl	0.1 mg/kg	<0.1 mg/kg	Pass
Chlorthal-dimethyl	0.01 mg/kg	<0.01 mg/kg	Pass
Cyfluthrin (sum of isomers)	0.1 mg/kg	<0.1 mg/kg	Pass
Cyhalothrin, lambda-	1 mg/kg	<1 mg/kg	Pass
Cypermethrin (sum of isomers)	1 mg/kg	<1 mg/kg	Pass

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Analysis	Limit	Result	Pass/Fail
<b>GC-MS/MS and LC-MS/MS Multi-Residue Analysis</b>			
DDT (sum of o,p'-DDT, p,p'-DDT, o,p'-DDE, p,p'-DDE, o,p'-DDD, and p,p'-DDD)	1 mg/kg	<1.0 mg/kg	Pass
Deltamethrin	0.5 mg/kg	<0.5 mg/kg	Pass
Diazinon	0.5 mg/kg	<0.5 mg/kg	Pass
Dichlofluanid	0.1 mg/kg	<0.1 mg/kg	Pass
Dichlorvos	1 mg/kg	<1 mg/kg	Pass
Dicofol	0.5 mg/kg	<0.5 mg/kg	Pass
Dimethoate and omethoate (sum of)	0.1 mg/kg	<0.1 mg/kg	Pass
Endosulfan (sum of isomers and endosulfan sulfate)	3 mg/kg	<3.0 mg/kg	Pass
Endrin	0.05 mg/kg	<0.05 mg/kg	Pass
Ethion	2 mg/kg	<2 mg/kg	Pass
Etrimphos	0.05 mg/kg	<0.05 mg/kg	Pass
Fenchlorphos (sum of fenchlorphos and fenchlorphos-oxon)	0.1 mg/kg	<0.1 mg/kg	Pass
Fenitrothion	0.5 mg/kg	<0.5 mg/kg	Pass
Fenpropathrin	0.03 mg/kg	<0.03 mg/kg	Pass
Fensulfothion (sum of fensulfothion, fensulfothion-oxon, fensulfothion-oxon sulfone and fensulfothion sulfone)	0.05 mg/kg	<0.05 mg/kg	Pass
Fenthion (sum of fenthion, fenthion-oxon, fenthion-oxon sulfone, fenthion-oxon sulfoxide, fenthion sulfone and fenthion sulfoxide)	0.05 mg/kg	<0.05 mg/kg	Pass
Fenvalerate	1.5 mg/kg	<1.5 mg/kg	Pass
Flucythrinate	0.05 mg/kg	<0.05 mg/kg	Pass
Fluvalinate, tau-	0.05 mg/kg	<0.05 mg/kg	Pass
Fonofos	0.05 mg/kg	<0.05 mg/kg	Pass
Heptachlor (sum of heptachlor and cis- and trans-heptachlor epoxides)	0.05 mg/kg	<0.05 mg/kg	Pass

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<b>PO Number</b>	CVd	<b>Receipt Condition</b>	Ambient temperature
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Analysis	Limit	Result	Pass/Fail
<b>GC-MS/MS and LC-MS/MS Multi-Residue Analysis</b>			
Hexachlorobenzene	0.1 mg/kg	<0.1 mg/kg	Pass
Hexachlorocyclohexane isomers (other than gamma)	0.3 mg/kg	<0.3 mg/kg	Pass
Lindane (gamma-hexachlorocyclohexane)	0.6 mg/kg	<0.6 mg/kg	Pass
Malathion and malaoxon (sum of)	1 mg/kg	<1 mg/kg	Pass
Mecarbam	0.05 mg/kg	<0.05 mg/kg	Pass
Methacriphos	0.05 mg/kg	<0.05 mg/kg	Pass
Methamidophos	0.05 mg/kg	<0.05 mg/kg	Pass
Methidathion	0.2 mg/kg	<0.2 mg/kg	Pass
Methoxychlor	0.05 mg/kg	<0.05 mg/kg	Pass
Mirex	0.01 mg/kg	<0.01 mg/kg	Pass
Monocrotophos	0.1 mg/kg	<0.1 mg/kg	Pass
Parathion-ethyl and paraoxon-ethyl (sum of)	0.5 mg/kg	<0.5 mg/kg	Pass
Parathion-methyl and paraoxon-methyl (sum of)	0.2 mg/kg	<0.2 mg/kg	Pass
Pendimethalin	0.1 mg/kg	<0.1 mg/kg	Pass
Pentachloranisol	0.01 mg/kg	<0.01 mg/kg	Pass
Permethrin (sum of isomers)	1 mg/kg	<1 mg/kg	Pass
Phosalone	0.1 mg/kg	<0.1 mg/kg	Pass
Phosmet	0.05 mg/kg	<0.05 mg/kg	Pass
Piperonyl butoxide	3 mg/kg	<3 mg/kg	Pass
Pirimiphos-ethyl	0.05 mg/kg	<0.05 mg/kg	Pass
Pirimiphos-methyl (sum of pirimiphos-methyl and N-desethyl-pirimiphos-methyl)	4 mg/kg	<4 mg/kg	Pass
Procymidone	0.1 mg/kg	<0.1 mg/kg	Pass
Profenophos	0.1 mg/kg	<0.1 mg/kg	Pass
Prothiophos	0.05 mg/kg	<0.05 mg/kg	Pass
Pyrethrum (sum of cinerin I, cinerin II, jasmolin I, jasmolin II, pyrethrin I, and pyrethrin II)	3 mg/kg	<3 mg/kg	Pass

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<b>Project ID</b>	CV_SCIENCE-20200826-0014	<b>Receipt Date</b>	27-Aug-2020
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Analysis	Limit	Result	Pass/Fail
<b>GC-MS/MS and LC-MS/MS Multi-Residue Analysis</b>			
Quinalphos	0.05 mg/kg	<0.05 mg/kg	Pass
Quintozene (sum of quintozene, pentachloroaniline and methyl pentachlorophenyl sulfide)	1 mg/kg	<1 mg/kg	Pass
S-421	0.02 mg/kg	<0.02 mg/kg	Pass
Tecnazene	0.05 mg/kg	<0.05 mg/kg	Pass
Tetradifon	0.3 mg/kg	<0.3 mg/kg	Pass
Vinclozolin	0.4 mg/kg	<0.4 mg/kg	Pass

### Method References

### Testing Location

#### Beta Glucan (MISC\_YBGL)

#### Food Integrity Innovation-Madison

Megazyme Kit K-YBGL

3301 Kinsman Blvd Madison, WI 53704 USA

#### Bromide (EC\_MEBR\_S)

#### Eurofins Central Analytical Laboratories

Community Reference Laboratory for Single Residue Methods, CVUA, Stuttgart, Schaglandstr 3/2, 70736 Fellbach, Germany.

T. Stijve, Gas Chromatographic Determination of Inorganic Bromide Residues - a Simplified Procedure, Dtsch. Lebenm Rundschr 77 99-101 (1981).

Deutsche Forschungsgemeinschaft (DFG), Manual of Pesticide Residue Analysis, Volume I by Verlag Chemie, 1987 ISBN 3-527-27010-8

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#### Method References

#### Testing Location

##### GC-MS/MS and LC-MS/MS Multi-Residue Analysis (EC\_PS01\_S)

##### Eurofins Central Analytical Laboratories

2219 Lakeshore Dr Suite 500 New Orleans, LA 70122 USA

Official Methods of Analysis, AOAC Official Method 2007.01, Pesticide Residues in Foods by Acetonitrile Extraction and Partitioning with Magnesium Sulfate, AOAC INTERNATIONAL (modified).

CEN Standard Method EN 15662: Food of plant origin - Determination of pesticide residues using GC-MS and/or LC-MS/MS following acetonitrile extraction/partitioning and clean-up by dispersive SPE - QuEChERS method.

*Please contact us* if you want a complete listing of all compounds determined during testing.

##### Total Content of Dithiocarbamates (DTCs) expressed as CS<sub>2</sub> (EC\_DTC\_S)

##### Eurofins Central Analytical Laboratories

2219 Lakeshore Dr Suite 500 New Orleans, LA 70122 USA

Hayama, T. and Takada, M., "Simple and Rapid method for the determination of Ethylenebisdithiocarbamate Fungicides in Fruits and Vegetables Using Liquid Chromatography with Tandem Mass Spectrometry," *Anal. Bioanal. Chem.*, 392:969-976 (2008).

##### USP 561 Pesticides Package (EC\_USP561)

##### Eurofins Central Analytical Laboratories

2219 Lakeshore Dr Suite 500 New Orleans, LA 70122 USA

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#### Testing Location(s)

#### Released on Behalf of Eurofins by

##### Food Integrity Innovation-Madison

##### Edward Ladwig - President Eurofins Food Chemistry Testing Madison

Eurofins Food Chemistry Testing Madison, Inc.  
3301 Kinsman Blvd  
Madison WI 53704  
800-675-8375

These results apply only to the items tested. This certificate of analysis shall not be reproduced, except in its entirety, without the written approval of Eurofins.

August 28, 2020

**CV SCIENCES, INC.**

Attn: Vandana Kothari  
10070 Barnes Canyon Road, Suite 100  
San Diego, CA 92121

Order No. 515153  
Sample No. 1056021

### SAMPLE INFORMATION

**Description** FP-20-0560 CV Defense Immunity Capsule - 60ct EXP: 07/22  
**Lot Number** 09524195  
**Category (Type)** Non-Inhalable Other (Capsule)  
**Received** August 27, 2020

### ANALYTICAL RESULTS

**Analysis** Heavy Metals  
**Instrument** ICP-MS  
**Method** MF 24E020  
**Analysis Date** August 27, 2020 to August 28, 2020

Analyte	LOD/LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
Arsenic	0.02/0.05	BLOQ	1.5	Pass
Cadmium	0.02/0.05	ND	0.5	Pass
Mercury	0.02/0.05	ND	3	Pass
Lead	0.02/0.05	ND	0.5	Pass

Reported by  
**Anresco, Inc.**

ND = None Detected  
<LOQ = Below Limit of Quantitation  
<LOD = Below Limit of Detection



**Eric Tam**  
**Senior Chemist**  
August 28, 2020

August 31, 2020

**CV SCIENCES, INC.**

Attn: Vandana Kothari  
10070 Barnes Canyon Road, Suite 100  
San Diego, CA 92121

Order No. 515153  
Sample No. 1056021

## SAMPLE INFORMATION

**Description** FP-20-0560 CV Defense Immunity Capsule - 60ct EXP: 07/22  
**Lot Number** 09524195  
**Category (Type)** Other (Capsule)  
**Received** August 27, 2020

## ANALYTICAL RESULTS

**Analysis Date** August 27, 2020 to August 31, 2020

Analyte	Method	Finding	Units
Standard Plate Count	FDA BAM	<10	cfu/g
Yeast	AOAC 2014.05	<10	cfu/g
Mold	AOAC 2014.05	<10	cfu/g
Coliforms	FDA BAM - ECC AGAR	<10	cfu/g
Escherichia coli	FDA BAM - ECC AGAR	<10	cfu/g
Salmonella	AOAC 2016.01	Negative	per 1g

Reported by  
**Anresco, Inc.**


**Allen Zhu**  
Analyst

August 31, 2020



August 31, 2020

**CV SCIENCES, INC.**

Attn: Vandana Kothari  
10070 Barnes Canyon Road, Suite  
100  
San Diego, CA 92121

Order No. 515153  
Sample No. 1056021

**SAMPLE INFORMATION**

**Description** FP-20-0560 CV Defense Immunity Capsule - 60ct EXP: 07/22  
**Lot Number** 09524195  
**Category (Type)** Other (Capsule)  
**Received** August 27, 2020

**ANALYTICAL RESULTS**

**Analysis** Residual Solvent Screen ✔ Pass  
**Instrument** Gas Chromatography Mass Spectrometry (GC/MS)  
**Method** USP OVI<467>  
**Analysis Date** August 27, 2020 to August 31, 2020

Analyte	LOD / LOQ (µg/g)	Findings (µg/g)	Limit (µg/g)	Status
1,2-Dichloroethane	0.10/1.00	ND	1.0	Pass
Acetone	11/150	ND	5000	Pass
Acetonitrile	1/12	ND	410	Pass
Benzene	0.10/1.00	ND	1.0	Pass
n-Butane	130/400	ND	5000	Pass
Chloroform	0.10/1.00	ND	1.0	Pass
Ethanol	13/200	ND	5000	Pass
Ethyl Acetate	5/80	ND	5000	Pass
Ethyl Ether	17/50	ND	5000	Pass
Ethylene Oxide	0.50/1.00	ND	1.0	Pass
n-Heptane	15/100	ND	5000	Pass
n-Hexane	2/10	ND	290	Pass
Isopropyl Alcohol	5/100	<LOQ	5000	Pass
Methanol	3/50	ND	3000	Pass
Methylene Chloride	0.50/1.00	ND	1.0	Pass
n-Pentane	26/150	ND	5000	Pass
Propane	170/510	ND	5000	Pass
Toluene	2/30	ND	890	Pass
Total Xylenes	5/90	ND	2170	Pass
Trichloroethylene	0.10/1.00	ND	1.0	Pass

Reported by  
**Anresco, Inc.**




Kaiyin Chen  
Analyst

August 31, 2020

ND = None Detected  
<LOQ = Below Limit of Quantitation  
<LOD = Below Limit of Detection