



JK BioScience, Inc.

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Food, Drug, Cosmetic, Medical Devices
Water, Soil, Wastewater, Environmental
Consulting and Research
Analytical Laboratories

August 22, 2019

Attn: Kim Choulgyu
GS-TK Co., Ltd
**11, Chungjang-ro, Deogyang-gu, Goyang-si,
Gyeonggi-do, Korea**

Summary of Test Results for Sample: Korean Red Ginseng

Requested Analyses: Heavy Metals, Pesticide Residue Screen,
Nutritional Analysis

The above-referenced subject was analyzed for Nutritional Analysis, Heavy Metals and Pesticide Residue Screen in accordance with AOAC Test Method conducted from July 23, 2019 to August 22, 2019.

Please refer to the attached Laboratory Certificate of Analysis, Lab I.D. 19-2263 for more detailed information. All results contained in the above report relate only to the items tested and samples received in satisfactory condition unless noted otherwise.

All procedures were conducted in conformance with good laboratory practice, California State Environmental Laboratory Accreditation Program (ELAP) No. 2968, CSDLAC No. 9249178. Thank you!

Respectfully Submitted,

Tim Peterson
QA/QC Chemist and
Project Control Consultant
JK BioScience, Inc.
U.S. FDA & EPA Consulting,
Research and Analytical Laboratories



JK BioScience Analytical Laboratories

1926 E. GLADWICK STREET RANCHO DOMINGUEZ, CA 90220

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CERTIFICATE OF ANALYSIS

CLIENT: **GS-TK Co., Ltd**
11, Chungjang-ro, Deogyang-gu, Goyang-si,
Gyeonggi-do, Korea

PROJECT CONT. PERSON: Kim Choulgyu

SAMPLE I.D.: **Korean Red Ginseng**

REPORTING DATE: 08/22/2019

SAMPLE RECEIVED: 07/23/2019

LABORATORY NO.: 19-2263

DATE SAMPLED : 07/23/2019

CA STATE ELAP NO.: 2968

LACSD LAB I.D. NO.: 9249178

INVESTIGATION: SEE BELOW

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Parameter	Result	Units	Reporting Limit	Method	Analyzed
Arsenic	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Cadmium	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Lead	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Mercury	ND	mg/kg	0.100	AOAC 2015.01 M	07/30/19
Barium	1.42	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Chromium	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Selenium	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19
Silver	ND	mg/kg	0.500	AOAC 2015.01 M	07/30/19

*ND: Parameter not detected at the indicated reporting limit.

Note: All results contained in the above report relate only to the items tested.
All samples received in satisfactory condition unless noted otherwise.

Approval By: Tim Peterson, QA/QC Chemist

Signature: _____

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Heavy Metals Evaluation

CLIENT: **GS-TK Co., Ltd**
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PROJECT CONT. PERSON: Kim Choulgyu

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INVESTIGATION: SEE BELOW

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Evaluation Heavy Metals

Parameter	Result	Units	Acceptable Limits	Evaluation of Sample Result (mg/kg)
Arsenic	<0.50	mg/kg	Up to 17.4mg/kg based on a maximum of 8.5g/day intake*	<17.4mg/kg based on a maximum of 8.5g/day intake*
Cadmium	<0.50	mg/kg	0.50 mg/kg**	<0.50
Lead	<0.50	mg/kg	7.00 mg/kg**	<7.00
Mercury	<0.10	mg/kg	1.00 mg/kg**	<1.00

**According to US National Library of Medicine and National Institutes of Health, daily consumption of seaweed (up to 8.5g/day) containing up to 17.4 ppm of Arsenic, does not pose significant health risk based on the tolerable weekly intakes established by the World Health Organization (WHO).*

***Based on FDA Action Levels for Poisonous or Deleterious Substances in Human Food and Animal Feed (HFS-565)*



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Pesticide Residues Analysis

Parameter	Result	Units	Reporting Limit	Method	Analyzed
alpha-BHC	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Lindane	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
beta-BHC	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
delta-BHC	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Heptachlor	ND	mg/kg	0.07	AOAC 2007.01	08/19/19
Aldrin	ND	mg/kg	0.08	AOAC 2007.01	08/19/19
Heptachlor epoxide	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
trans-Chlordane	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
cis-Chlordane	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Endosulfan I	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
4,4'-DDE	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Dieldrin	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Endrin	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
4,4'-DDD	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Endosulfan II	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
4,4'-DDT	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Endrin aldehyde	ND	mg/kg	0.08	AOAC 2007.01	08/19/19
Endosulfan sulfate	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Methoxychlor	ND	mg/kg	0.07	AOAC 2007.01	08/19/19
Endrin ketone	ND	mg/kg	0.07	AOAC 2007.01	08/19/19
Diazinon	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Isazophos	ND	mg/kg	0.05	AOAC 2007.01	08/19/19

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CLIENT: **GS-TK Co., Ltd**

SAMPLE I.D.: Korean Red Ginseng

Laboratory No.: 19-2263

Pesticide Residues Analysis

Parameter	Result	Units	Reporting Limit	Method	Analyzed
Chlorpyrifos methyl	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Fenitrothion	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Pirimiphos methyl	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Chlorpyrifos	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Prirmiphos ethyl	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Quinalphos	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Pyridaphenthion	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Phosmet	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
EPN	ND	mg/kg	0.10	AOAC 2007.01	08/19/19
Phosalone	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Azinphos methyl	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Pyrazophos	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Azinphos ethyl	ND	mg/kg	0.05	AOAC 2007.01	08/19/19
Pyraclofos	ND	mg/kg	0.05	AOAC 2007.01	08/19/19

*ND: Parameter not detected at the indicated reporting limit.

Pesticide residue analysis applies to firms in the food production and processing industries that handle food products that may contain residue of certain pesticide chemicals. The regulation of food and feed containing pesticide residues is governed by sections 402, 408, and 409 of the Federal Food, Drug, and Cosmetic Act (FFDCA). Food additive regulations issued by EPA for pesticide residues in processed food and feed appear in 21 CFR Part 193 and in 21 CFR Part 561, respectively.

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Approval By: Tim Peterson, QA/QC Chemist

Signature: _____



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Analytical Results, 2016 NLEA Nutritional Analysis

Parameter	Result	Units	Method	Start of Testing
Calories	326.96	C/100g	Calculation	07/23/19
Fat Calories	0.00	C/100g	Calculation	07/23/19
Total Fat	<0.10	g/100g	AOAC 996.06	07/23/19
Saturated Fat	<0.10	g/100g	AOAC 996.06	07/23/19
Trans Fat	<0.10	g/100g	AOAC 996.06	07/23/19
Monounsaturated Fat	<0.10	g/100g	AOAC 996.06	07/23/19
Polyunsaturated Fat	<0.10	g/100g	AOAC 996.06	07/23/19
Cholesterol	<1.00	mg/100g	AOAC 994.10	07/23/19
Carbohydrates	80.30	g/100g	Calculation	07/23/19
Total Dietary Fiber	2.26	g/100g	AOAC 985.29	07/23/19
Ash	0.93	g/100g	AOAC 923.03	07/23/19
Moisture	17.33	%	AOAC 925.08	07/23/19
Total Sugars	34.94	g/100g	AOAC 982.14	07/23/19

Added sugars are calculated based on client - provided information only.

Added Sugars = 0.00 g/100g

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CLIENT: **GS-TK Co., Ltd**

SAMPLE I.D.: Korean Red Ginseng

Laboratory No.: 19-2263

Analytical Results, 2016 NLEA Nutritional Analysis

Parameter	Result	Units	Method	Start of Testing
Fructose	17.16	%	AOAC 982.14	07/23/19
Glucose	13.51	%	AOAC 982.14	07/23/19
Sucrose	1.39	%	AOAC 982.14	07/23/19
Lactose	<0.50	%	AOAC 982.14	07/23/19
Maltose	2.64	%	AOAC 982.14	07/23/19
Protein	1.44	g/100g	AOAC 991.20	07/23/19
Total Vitamin D2 & D3	<0.20	mcg/100g	AOAC 2012.11	07/23/19
Potassium	267	mg/100g	AOAC 985.01M	07/23/19
Sodium	40.4	mg/100g	AOAC 985.01M	07/23/19
Calcium	26.0	mg/100g	AOAC 985.01M	07/23/19
Iron	2.29	mg/100g	AOAC 985.01M	07/23/19

*Part of analysis were performed with partnership lab, ISO/IEC 17025:2005 A2LA Cert. No. 2927.01, USDA #1990

Sample Temperature Upon Receipt: 21.0 deg C

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Approval By: Tim Peterson, QA/QC Chemist

Signature: _____



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For Nutrition Labeling based on serving size 100 gram

Analysis	Results	Units	Method Reference
Calories	327	C/100g	Calculation
Total Fat	<0.10	g/100g	AOAC 996.06
Saturated Fat	<0.10	g/100g	AOAC 996.06
Trans Fat	<0.10	g/100g	AOAC 996.06
Cholesterol	<1.00	mg/100g	AOAC 994.10
Sodium	40.4	mg/100g	AOAC 985.01 M
Total Carbohydrates	80.3	g/100g	Calculation
Dietary Fiber	2.26	g/100g	AOAC 985.29
Total Sugars	34.9	g/100g	AOAC 982.14
Added Sugars	0.00	g/100g	Based on client provided information
Protein	1.44	g/100g	AOAC 991.20
Vitamin D	<0.20	mcg/100g	AOAC 2012.11
Calcium	26.0	mg/100g	AOAC 985.01 M
Iron	2.29	mg/100g	AOAC 985.01 M
Potassium	267	mg/100g	AOAC 985.01 M

Company: GS-TK Co., Ltd

Product: Korean Red Ginseng

Serving Size: 13g

Nutrition Facts	
24 servings per container	
Serving size	1 serving (13g)
Amount per serving	
Calories	43
% Daily Value*	
Total Fat 0g	0%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 0mg	0%
Total Carbohydrate 8g	3%
Dietary Fiber 0g	1%
Total Sugars 3g	
Includes 0g Added Sugars	0%
Protein 0g	
Vitamin D 0mcg	0%
Calcium 3mg	0%
Iron 0.23mg	2%
Potassium 25mg	0%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Company: GS-TK Co., Ltd

Product: Korean Red Ginseng

Serving Size: 100g

Nutrition Facts

1 serving per container

Serving size 1 serving (100g)

Amount per serving

Calories 330

% Daily Value*

Total Fat 0g 0%

Saturated Fat 0g 0%

Trans Fat 0g

Cholesterol 0mg 0%

Sodium 40mg 2%

Total Carbohydrate 80g 29%

Dietary Fiber 2g 8%

Total Sugars 35g

Includes 0g Added Sugars 0%

Protein 1g

Vitamin D 0mcg 0%

Calcium 26mg 2%

Iron 2mg 15%

Potassium 270mg 6%

* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.