

## Full Report (All Nutrients) 16122, Soy protein isolate

Report Date: September 17, 2019 07:24 EDT

Nutrient values and weights are for edible portion.

Food Group : Legumes and Legume Products

**Carbohydrate Factor: 4.07 Fat Factor: 8.37 Protein Factor:3.47 Nitrogen to Protein Conversion Factor:6.25**

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 oz 28.35g
<b>Proximates</b>					
Water	g	4.98	--	--	1.41
Energy	kcal	335	--	--	95
Energy	kJ	1401	--	--	397
Protein	g	88.32	233	0.110	25.04
Total lipid (fat)	g	3.39	124	0.070	0.96
Ash	g	3.58	166	0.050	1.01
Carbohydrate, by difference	g	0.00	--	--	0.00
Fiber, total dietary	g	0.0	--	--	0.0
Sugars, total	g	0.00	--	--	0.00
<b>Minerals</b>					
Calcium, Ca	mg	178	176	6.000	50
Iron, Fe	mg	14.50	125	0.320	4.11
Magnesium, Mg	mg	39	155	1.000	11
Phosphorus, P	mg	776	163	7.000	220
Potassium, K	mg	81	102	1.000	23
Sodium, Na	mg	1005	592	6.000	285
Zinc, Zn	mg	4.03	132	0.150	1.14
Copper, Cu	mg	1.599	122	0.028	0.453
Manganese, Mn	mg	1.493	146	0.060	0.423
Selenium, Se	µg	0.8	--	--	0.2
<b>Vitamins</b>					
Vitamin C, total ascorbic acid	mg	0.0	--	--	0.0

<b>Nutrient</b>	<b>Unit</b>	<b>1 Value Per100 g</b>	<b>Data points</b>	<b>Std. Error</b>	<b>1 oz 28.35g</b>
Thiamin	mg	0.176	118	0.016	0.050
Riboflavin	mg	0.100	118	0.004	0.028
Niacin	mg	1.438	120	0.218	0.408
Pantothenic acid	mg	0.060	109	0.003	0.017
Vitamin B-6	mg	0.100	--	--	0.028
Folate, total	µg	176	112	3.000	50
Folic acid	µg	0	--	--	0
Folate, food	µg	176	112	3.000	50
Folate, DFE	µg	176	--	--	50
Choline, total	mg	190.9	--	--	54.1
Vitamin B-12	µg	0.00	--	--	0.00
Vitamin B-12, added	µg	0.00	--	--	0.00
Vitamin A, RAE	µg	0	--	--	0
Retinol	µg	0	--	--	0
Carotene, beta	µg	0	--	--	0
Carotene, alpha	µg	0	--	--	0
Cryptoxanthin, beta	µg	0	--	--	0
Vitamin A, IU	IU	0	--	--	0
Lycopene	µg	0	--	--	0
Lutein + zeaxanthin	µg	0	--	--	0
Vitamin E (alpha-tocopherol)	mg	0.00	--	--	0.00
Vitamin E, added	mg	0.00	--	--	0.00
Vitamin D (D2 + D3)	µg	0.0	--	--	0.0
Vitamin D	IU	0	--	--	0
Vitamin K (phylloquinone)	µg	0.0	--	--	0.0
<b>Lipids</b>					
Fatty acids, total saturated	g	0.422	--	--	0.120
4:0	g	0.000	--	--	0.000
6:0	g	0.000	--	--	0.000
8:0	g	0.000	--	--	0.000
10:0	g	0.000	--	--	0.000
12:0	g	0.000	--	--	0.000
14:0	g	0.008	--	--	0.002

Nutrient	Unit	1 Value Per100 g	Data points	Std. Error	1 oz 28.35g
16:0	g	0.310	--	--	0.088
18:0	g	0.104	--	--	0.029
Fatty acids, total monounsaturated	g	0.645	--	--	0.183
16:1 undifferentiated	g	0.008	--	--	0.002
18:1 undifferentiated	g	0.637	--	--	0.181
20:1	g	0.000	--	--	0.000
22:1 undifferentiated	g	0.000	--	--	0.000
Fatty acids, total polyunsaturated	g	1.648	--	--	0.467
18:2 undifferentiated	g	1.453	--	--	0.412
18:3 undifferentiated	g	0.195	--	--	0.055
18:4	g	0.000	--	--	0.000
20:4 undifferentiated	g	0.000	--	--	0.000
20:5 n-3 (EPA)	g	0.000	--	--	0.000
22:5 n-3 (DPA)	g	0.000	--	--	0.000
22:6 n-3 (DHA)	g	0.000	--	--	0.000
Fatty acids, total trans	g	0.000	--	--	0.000
Cholesterol	mg	0	--	--	0
<b>Amino Acids</b>					
Tryptophan	g	1.116	40	--	0.316
Threonine	g	3.137	66	--	0.889
Isoleucine	g	4.253	66	--	1.206
Leucine	g	6.783	66	--	1.923
Lysine	g	5.327	71	--	1.510
Methionine	g	1.130	74	--	0.320
Cystine	g	1.046	55	--	0.297
Phenylalanine	g	4.593	63	--	1.302
Tyrosine	g	3.222	47	--	0.913
Valine	g	4.098	66	--	1.162
Arginine	g	6.670	46	--	1.891
Histidine	g	2.303	47	--	0.653
Alanine	g	3.589	44	--	1.017
Aspartic acid	g	10.203	44	--	2.893
Glutamic acid	g	17.452	44	--	4.948

Nutrient	Unit	1			1 oz 28.35g
		Value Per100	Data points	Std. Error	
Glycine	g	3.603	44	--	1.021
Proline	g	4.960	44	--	1.406
Serine	g	4.593	44	--	1.302
<b>Other</b>					
Alcohol, ethyl	g	0.0	--	--	0.0
Caffeine	mg	0	--	--	0
Theobromine	mg	0	--	--	0
<b>Flavonoids</b>					
Isoflavones					
Daidzein <a href="#">1 2 3 4 5 6 7 8 9 10 11 12</a>	mg	30.80	49	12.72	8.73
Genistein <a href="#">1 2 3 4 5 6 7 8 9 10 11 12 13</a>	mg	57.27	55	14.17	16.24
Glycitein <a href="#">1 2 3 4 6 8 10 11 12</a>	mg	8.53	42	3.21	2.42
Total isoflavones <a href="#">1 2 3 4 5 6 7 8 9 10 11 12</a>	mg	91.05	49	25.99	25.81

<sup>1</sup>Achouri, A., Boye, J. I., and Belanger, D. **Soybean isoflavones: Efficacy of extraction conditions and effect of food type on extractability.**, 2008 Food Res. Int. 38 pp.1199-1204

<sup>2</sup>Coward, L., Smith, M., Kirk, M., and Barnes, S. **Chemical modification of isoflavones in soyfoods during cooking and processing.**, 1998 Am. J. Clin. Nutr. 68(S) pp.1486S-1491S

<sup>3</sup>Fang, N., Yu, S., and Badger, T. M. **Comprehensive phytochemical profile of soy isolate.**, 2004 J. Agric. Food Chem. 52 pp.4012-4020

<sup>4</sup>Barnes, S., Kirk, M., and Coward, L. **Isoflavones and their conjugates in soy foods: Extraction conditions and analysis by HPLC- mass spectrometry.**, 1994 J. Agric. Food Chem. 42 pp.2466-2474

<sup>5</sup>Coward, L., Barnes, N., Setchell, K D R., and Barnes, S. **Genistein, Daidzein, and their S-glycoside conjugates: Antitumor isoflavones in soybean foods from American and Asian diets.**, 1993 J. Agric. Food Chem. 41 pp.1961-1967

<sup>6</sup>Coward, L., Kirk, M., Albin, N., and Barnes, S. **Analysis of plasma isoflavones by reverse-phase HPLC-multiple reaction ion monitoring-mass spectrometry.**, 1996 Clinica Chimica Acta 247 pp.121-142

<sup>7</sup>Franke, A. A., Custer, L. J., Wang, W., and Shi, C. Y. **HPLC analysis of isoflavonoids and other phenolic agents from foods and from human fluids.**, 1998 Proc. Soc. Exp. Biol. Med. 217 pp.263-273

<sup>8</sup>Murphy, P.A., Barua, K., and Song, T. **Soy isoflavones in foods: Database development.** , 1998 In: American Chemical Society Symposium Series, 701, pp.138-149

<sup>9</sup>Seo, A. and Morr, C.V. **Improved high-performance liquid chromatographic analysis of phenolic acids and isoflavonoids from soybean protein products.**, 1984 J. Agric. Food Chem. 32 pp.530-533

<sup>10</sup>Wang, H-J. and Murphy, P. A. **Isoflavone content in commercial soybean foods.**, 1994 J. Agric. Food Chem. 42 pp.1666-1673

<sup>11</sup>Wang, H-J. and Murphy, P. A. **Mass balance study of isoflavones during soybean processing.**, 1996 J. Agric. Food Chem. 44 pp.2377-2383

<sup>12</sup>Wang, C., Ma, Q., Pagadala, S., Sherrad, M. S., and Krishnan, P. G. **Changes of isoflavones during processing of soy protein isolates.**, 1998 J. Am. Oil Chem. Soc. 75 pp.337-341

<sup>13</sup>Downing, J. M., Chung, O. K., Seib, P. A., and Hubbard, J. D. **Pressurized solvent extraction of genistein and its -glucoside conjugates from soybean flours and soy-based foods.**, 2007 Cereal Chem.istry 84 pp.44-47

**Languag Code(s)**

- A0129 REFINED OR PARTIALLY-REFINED FOOD PRODUCT (US CFR)
- A1286 1600 LEGUMES AND LEGUME PRODUCTS (USDA SR)
- B1452 SOYBEAN
- C0236 PROTEIN EXTRACT, CONCENTRATE OR ISOLATE
- E0136 DISINTEGRATED OR GROUND
- F0014 FULLY HEAT-TREATED

- G0003 COOKING METHOD NOT APPLICABLE
- H0138 WATER REMOVED
- H0161 FAT REMOVED
- H0206 ALKALIZED
- J0116 DEHYDRATED OR DRIED
- K0003 NO PACKING MEDIUM USED
- M0001 CONTAINER OR WRAPPING NOT KNOWN
- N0001 FOOD CONTACT SURFACE NOT KNOWN
- P0024 HUMAN FOOD, NO AGE SPECIFICATION