Atlas Bioscience Labs
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ANALYTICAL REPORT

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P.O.#:
DATE:

Lab Number: **16775-04A**

Sample: **Droi-Kon™ Chondroitin Sulfate Chicken**

Lot Number: **Undesignated**

Analyte	Result	Unit
total Calories	372.7	cal / 100 g
Calories from Fat	2.70	cal / 100 g
Fat (total by hexane extraction)	0.30	g / 100 g
sat. Fat	4.5	mg / 100 g
trans Fat	< 0.1	mg / 100 g
Protein (kjeldahl nitrogen x 6.25)	2.97	g / 100 g
Carbohydrate	89.55	g / 100 g
Dietary Fiber	< 0.1	g / 100 g
Sugars	88.11	g / 100 g
Cholesterol	< 0.1	mg / 100 g
Sodium	615.4	mg / 100 g
Calcium	34.05	mg / 100 g
Iron	0.71	mg / 100 g
Vitamin A (as beta-carotene)	< 0.1	IU / 100 g
Vitamin C (ascorbic acid)	< 0.1	mg / 100 g
Moisture	5.63	g / 100 g
Ash	1.55	g / 100 g

Nutrition Panel
Fatty acid analysis performed by GC-MS on a BTFSA derivatized sample on a capillary column stationary phase of BPX5, 0.25m film: length: 30m x 0.1 mm ID. Oven Program: Initial Temp:50°C, 1 min. Rate 1: 30°C/min. Final Temp: 320°C, 2 min. Detector Type: MS in positive ion Temperature: 320°C Carrier Gas: He, 23psi. Average Linear Velocity:30 cm/sec at 50°C.

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Amended Report - Lab No. 16775-04A replaces 16775-04

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Injection Mode: Split. Split Ratio: 100:1. Injection Volume: 1.0 ?L Injection Temperature: 250°C Liner Type: 4 mm ID Single Taper. Authentic reference materials obtained from Sigma-Aldrich. Cholesterol analysis performed using HPLC by method adapted from Indyk, H.E., "Simultaneous Liquid-Chromatographic Determination Of Cholesterol, Phytosterols and Tocopherols in Foods," as published in Analyst 115 (12): 1525-1530 Dec 1990; utilizing a facile saponification of fatty acids rapidly within a single reaction tube, followed by analysis by reversed-phase chromatography on a Altima-ODS-HC (150x4.6mm) with a mobile phase of MeOH:EtOAc (75:25) 1ml/min and UV detection at 205nm. Authentic chemical reference material obtained from Sigma-Aldrich. Elemental nitrogen content determined by Kjeldahl digestion analysis performed on two grams sample in a digestion tube with 12-15 ml of concentrated sulfuric acid (H2SO4). Seven grams of potassium sulfate (K2SO4) and a metallic copper catalyst added. The digestion tube placed into a digestion block and heated to boiling for one hour at 370ºF to 400ºF. Ammonia distillation performed and ammonia collected by absorption onto a solution of 4% boric acid; resultant ammonium borate titrated with 0.1N hydrochloric acid in the presence of mixed indicator, (bromocresol green / methyl red). Percent nitrogen: % N = 14.01 x [(ml titrant – ml blank) – (N of titrant) x 100]/Sample Wt. (grams) x 1000. Authentic reference materials obtained from Sigma-Aldrich. Ascorbic acid anion analysis performed using HPLC by method adapted from Castro RN, Azeredo LC, Azeredo MAA, de Sampaio CST, "HPLC Assay for the Determination of Ascorbic Acid in Honey Samples," as published in Journal Of Liquid Chromatography & Related Technologies 24 (7): 1015-1020 2001; utilizing a C-18-ODS column with an isocratic mobile phase consisting of a mixture of 15% methanol and 85% water, adjusted to pH 2.5 with metaphosphoric acid, at a flow rate of 0.9 mL/min. detection performed by scanning PDA (200-400nm) with signal extraction at 254 nm for quantification. Beta-carotene analysis performed using HPLC by method adapted from Steghens, J.P., vanKappel, A.L., Riboli, E., Collombel, C., "Simultaneous Measurement of Seven Carotenoids, Retinol and Alpha-tocopherol by High-Performance Liquid Chromatography," as published in the Journal of Chromatography, B: Biomedical Applications, 694: 71-81, 1997; utilizing a sample mixed 0.2 ml ethanol then shaken for 5 min. H2O (0.2 ml) and hexane (0.5 ml) were added and shaken for 5 min, and the organic phase separated. After second extraction with 0.3 ml hexane, combined extract was evaporated in vacuo and residue was dissolved in 0.3 ml hexane/ethanol/methanol (1:5:44). This solution was analyzed on two columns of 3 mum Adsorbosphere HS C18 (10 cm * 4.6 mm i.d. and 15 cm * 4.6 mm i.d. in series) at 37°C. The mobile phase (0.9 ml/min) was methanol/acetonitrile (2:3), containing 0.5% acetic acid for 7.1 min, then a step gradient to 24% of CH2Cl2 in the same solvent for 10.3 min, with detection at 292, 325, 450 and 473 nm. Metal analysis performed using Inductively Coupled Plasma Optical Emission Spectrometry (ICP-OES) on a Perkin Elmer Optima 7300DV on a 2% nitric acid digested sample (1mg/ml) introduced at 1.0ml / min with a 15L/min argon plasma temp of 16000°C, in simultaneous wavelength mode with integration time of 5 sec in triplicate for each elemental signature emission line External calibration solution utilized for quantification obtained from Absolute Standards.

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Laboratory Director

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