



Certificate of Analysis

47 W Polk St. STE 100-241
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LiftMode

Choline L-Bitartrate

 (2-Hydroxy-N,N,N-trimethylethan-1-aminium 3-carboxy-2,3-dihydroxypropanoate)

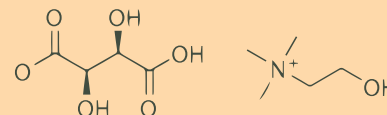
Material Lot #: C20181009 / 20181009 Test Date: 03/05/2021
Country of Origin: China Re-Test Date: 03/04/2024

Analysis	Claim	Result
Choline L-Bitartrate	≥98%	99.1%

Test	Specification	Result
Choline L-Bitartrate (HPLC)	≥98%	99.1%
Identification (1H NMR)	Conforms to Structure	Conforms
Lead	≤0.5ppm	0.013 ppm
Mercury	≤0.5ppm	0.002 ppm
Cadmium	≤0.5ppm	0.018 ppm
Arsenic	≤0.5 ppm	<0.0001 ppm
Total Aerobic Plate Count	<1000 cfu/g	<100 cfu/g
Yeast & Mold	Yeast & Mold < 100 cfu/g	<100 cfu/g
Escherichia coli	<10 cfu/g	<10 cfu/g
Coliforms	<10 cfu/g	<10 cfu/g
Salmonella	Negative	Negative

Choline L-Bitartrate should be stored at or below room temperature in a tightly sealed durable container. Choline L-Bitartrate should be protected from excess heat, direct sunlight, excess humidity, and moisture. Choline L-Bitartrate has a retesting period of 3 years from the date of analysis when properly stored.

Choline L-Bitartrate



Main Benefits

- Choline is a natural precursor to the neurotransmitter Acetylcholine. L-Bitartrate has been found to vastly increase the bio-availability of Choline.
- Acetylcholine plays an important role in mood, attention, cognitive function, and motivation.
- Furthermore, studies indicate that Acetylcholine is the neurotransmitter responsible for other basic bodily functions.

Main Cautions

- Several studies indicate that Choline L-Bitartrate has minimal adverse side effects and is generally safe for consumption within the recommended serving size.
- Excessive amounts of Choline have been linked to drops in blood pressure, sweating, diarrhea, nausea, and vomiting.
- Do not use this supplement without first consulting with your doctor if you are taking any medication or have any medical condition.

Usage Tips

- A 1.0 cc measuring scoop is included. Two rounded scoops contains approximately one serving, or approximately **600mg of Choline L-Bitartrate**. As a dietary supplement, take 1 serving 1-2 times per day. Start at the lower suggested quantity to assess response.
- The negative effects of Choline L-Bitartrate are dependent on the amount taken. Use of a scale with 10mg/0.01g accuracy or better is highly recommended.
- Use of capsules, or mixing with tea, yogurt, apple sauce, or oatmeal may help make the powder easier to tolerate.
- This supplement is not intended to treat, diagnose, prevent, or cure any diseases. Consult your healthcare provider before use if you have a medical condition or if you are taking any prescription medications.
- It is safe to stack Choline L-Bitartrate with other supplements, so long as the amount consumed does not exceed the suggested serving size.
- The benefits of Choline L-Bitartrate are most effective when they are supported by a healthy diet and plenty of exercise.



S & N LABS

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12 March 2021

Job Number: 24771b
PO Number: verbal

Synaptent LLC
47 West Polk Street #100-241
Chicago, Illinois 60605

REPORT OF ANALYSIS

One plastic container, labeled "Choline L-Bitartrate 20181009" was received on 18 February, 2021. The material was analyzed for purity using high pressure liquid chromatography (HPLC) using an evaporative light scattering detector (ELSD). The results are summarized in the table below.

Sample	Chromatographic Purity (% area)
Choline L-Bitartrate 20181009	99.1

The chromatogram is enclosed for your reference.

Neil E. Spingarn, Ph.D.
President

812 Meadow Lark Lane, Goodlettsville, TN 37072
Telephone: 615-239-8604



Certificate of Analysis

Synaptent LLC
47 W Polk Street, 100-241
Chicago, IL 60654

Product Name	L-Choline Bitartrate	Product Lot Number	C20181009
Report Date	07/29/2019	Laboratory Number	12348

Description	Method	Result
Identification	Proton NMR	Conforms to structure
Assay	USP Titration	99.2%
Lead	ICP-MS USP <730>	0.013 ppm
Arsenic	ICP-MS USP <730>	<0.0001 ppm
Cadmium	ICP-MS USP <730>	0.018 ppm
Mercury	ICP-MS USP <730>	0.002 ppm
Total Aerobic Count	Biolumix	<100 cfu/g
Yeast and Mold	Biolumix	<10 cfu/g
E. Coli	Biolumix	<10 cfu/g
Coliform	Biolumix	<10 cfu/g
Salmonella	Biolumix	Negative

Collin Thomas
Laboratory Manager

07/29/2019 7/29/19
Date

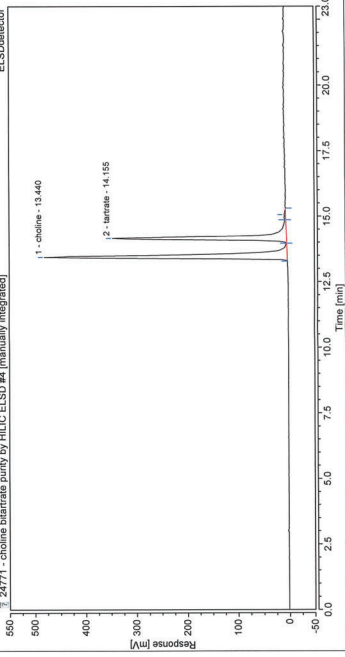
The result(s) stated in this report is only for the sample submitted. This report may not be reproduced in whole or in part, nor may any reference be made to the work, the result, or the company, in any news release, public announcements or advertising without our prior written consent.

Chromatogram and Results

Injection Details

Injection Name: choline L-bitartrate - 20181009
 Run Time (min): 30.00
 Injection Volume: 10.00
 Channel: ELSDetector
 Injection Type: Unknown
 Calibration File: choline bitartrate purity HILIC ELSD method
 Method: choline bitartrate purity HILIC ELSD processing
 Processing Method: choline bitartrate purity HILIC ELSD processing
 Injection Date/Time: 05/Mar/21 18:08
 Dilution Factor: 1.0000
 Sample Weight: 1.0000

Chromatogram
650 - 24771 - choline bitartrate purity by HILIC ELSD #4 [manually integrated]

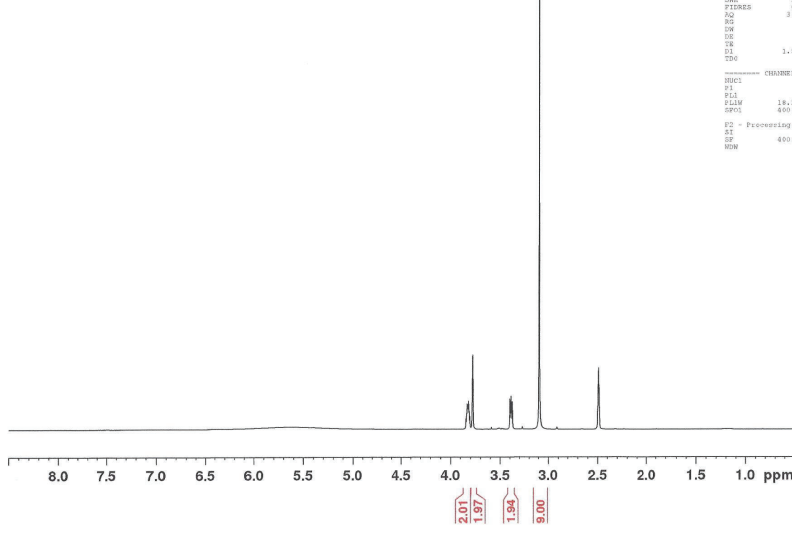


No.	Peak Name	Retention Time (min)	Area (mV*min)	Height (mV)	Relative Area (%)	Relative Height (%)	Amount
1	choline	13.440	49.547	47.922	50.00	50.00	n.a.
2	bitartrate	14.155	48.553	34.233	49.94	49.94	n.a.
3		15.053	0.769	3.708	0.63	0.43	n.a.
Total:			121.567	823.898	100.00	100.00	

choline bitartrate purity HILIC ELSD Report Integration

Chromatogram Data
Version 7.2.10.20205

1H NMR of L-Choline Bitartrate
in DMSO
Lot # 12348
Colmaric Analytical
400 MHz
07-26-19



Current Data Parameters
 NAME: Jul26-2019-colmaric
 EXPNO: 4
 PROCNO: 4
 F2 - Acquisition Parameters
 Date_: 20190726
 Time: 13:06
 INSTRUM: spect
 PROCNO: 5 on PAK0 88
 PULPROG: zg30
 TD: 32768
 SOLVENT: DMSO
 NS: 32
 DS: 4
 SWH: 3208.133 Hz
 FIDRES: 0.14844 Hz
 AQ: 3.14457281 sec
 RG: 327.68
 DW: 96.000 usec
 DE: 23.43 usec
 TE: 298.0 K
 F1: 3.00000000 usec
 T20: 1

===== CHANNEL f1 =====
 NUCL1: 1H
 P1: 12.00 usec
 PL1: -2.00 dB
 SFO1: 400.1500000 MHz
 =====
 F2 - Processing parameters
 SI: 32768
 SF: 400.1500000 MHz
 DS: 4