



**Certificate Of Analysis**

161694

**Customer:**

[Redacted]

PO #: 16179

Customer Part #: ZHYAACID

Ship Date: 12/14/16

Shipment #: 000007647

DEC 22 2016 15:50  
#32016



**Description:**

Sodium Hyaluronate HA

**Lot #:**

3951610013X

**Standard**

**Result \***

**Physical Properties**

Appearance		White powder	Complies
Bulk Density Loose (gm/cc)	>= 0.15	<= 0.3	0.26
Particle size thru # 80 (%)	>= 90		Complies***

**Analytical**

Sodium Hyaluronate (Dry basis, %)	>= 93		95
Hyaluronic Acid (Dry basis, %)	>= 88		89
Glucuronic Acid (Dry basis, %)	>= 45		46
Loss on drying (%)		<= 8.0	6.5
pH	>= 6.0	<= 8.0	6.6
Protein (%)		<= 0.1	0.02
Molecular weight (kDA)	>= 1300	<= 1700	1430
Lead (ppm)		<= 0.5	<0.5
Arsenic (ppm)		<= 1.5	<1.5
Cadmium (ppm)		<= 0.5	<0.5
Mercury (ppm)		<= 0.2	<0.2

**Microbiological**

APC (CFU/gm)		<= 1000	<100
Yeast/mold (CFU/gm)		<= 100	Complies
E. coli (CFU/gm)		Negative	Negative
Salmonella (25 gm)		Negative	Negative

**Storage Conditions**

Manufacture date	Oct 01, 2016
Expiration date	Oct 01, 2019
Storage	Cool dry place sealed in light resistant container
Manufactured by	Plant # 395
Country of origin	China
Revision #	Rev 9 10/26/2016

*Warren K. Majerus*

Approved By:

Warren K. Majerus  
VP Quality Assurance

Date: 12/14/2016

\* Test results based on information supplied by the manufacturer, unless otherwise noted.

\*\* Based on third party testing lab results.

\*\*\* Based on results from Pharmore's sampling protocol.

The information contained in this certificate of analysis is believed to be accurate and is offered in good faith. Pharmore Ingredients, however, cannot assume any guarantee against natural product variations, patent infringement, liabilities or risk involved from the use of this product. Customers assume all risk and liability with the use of this product.



**ANALYTICAL LABORATORIES IN ANAHEIM, INC.**

2951 Saturn Street Unit C, Brea, CA 92821 Ph: (714)524-9988 Fax:(714)524-9926  
Website: <http://www.analytical-lab.com>



Receive Date: 12/22/2016

Report Date: 01/09/2017

Tel: (805) 688-1731 Fax: (805) 693-8627

Job#: 92940 Sample: Hyaluronic Acid

Lot#: ZHYAACID-161694 PO:  
16265

Analysis	Claim	Result
Hyaluronic Acid Sodium Salt (as Sigma Reference Standard)	>93%	97.4%

Method: ALC737A for Hyaluronic Acid Sodium Salt (as Sigma Reference Standard)

*01/09/2017*

Chemist: *[Signature]*

Director, David Ji: *[Signature]* *01/09/2017*

## Analytical Results Sheet

Customer:	[REDACTED]	Report Number:	CDXA-ARS-34717-00
Address (City, State):		Project Number:	ORD91579
Sample Name:	Sodium Hyaluronate HA	Date Received:	19-Jan-17
Sample Lot:	ZHYAACID-161694	Purchase Order:	16266
CDXA Number:	CDXA-17-000795	Date of Report:	26-Jan-17
Assay:	Metals Testing: ICP-MS for 4 Elements	Page:	1 of 1
Part Number:	CDA-00100497-ARS	Test Location:	Boulder, CO
Method:	99.1-CDXA-4.0-000615		

Analyte	Units	Spec.	Result	Reporting Limit
Arsenic	ppm	< 1	ND	0.20
Cadmium	ppm	< 0.5	ND	0.049
Lead	ppm	< 1	ND	0.049
Mercury	ppm	< 1	ND	0.025

Verified: John Rowley

QA Approved: **Adriana Torres**  
*Signed original on file at CDXA*

Digitally signed by Adriana Torres  
 DN: cn=Adriana Torres, o=ChromaDex Inc.,  
 ou=Quality Assurance,  
 email=AdrianaT@ChromaDex.com, c=US  
 Date: 2017.01.26 17:17:12 -0700'



ChromaDex Inc. maintains ANAB accreditation to ISO17025:2005 for the specific tests listed on the ANAB certificate # AT-1816.

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ND – Not detected above reporting limit