



## Certificate of Analysis

Name	Hyaluronic Acid	Grade	Cosmetic Grade
M.W.	0.1-0.5 MDa	Test Method	GB/T 4416-2012
Lot No.	202103031	Report Date	2021/03/04
MFG Date	2021/03/03	EXP Date	2023/03/02

	Test Items	Specification	Results
1	Appearance	White or almost white powder or granules	Complies
2	Infrared absorption	Positive	Complies
3	Reaction of sodium	Positive	Complies
4	Absorbance	$\leq 0.25$	0.10
5	Transparency	$\geq 99.0\%$	100.0%
6	Ph	6.0~7.5	6.4
7	Intrinsic viscosity	(2.86~10.03)dL/g	4.72dL/g
8	Molecular weight	(0.10~0.50) $\times 10^6$ Da	0.19 $\times 10^6$ Da
9	Kinematic viscosity	Actual value	4.34mm <sup>2</sup> /s

### Purity Test

10	Loss on drying	$\leq 10\%$	9.47%
11	Residue on ignition	$\leq 20\%$	18.75%
12	Heavy metals	$\leq 20$ ppm	<20ppm
13	Arsenic	$\leq 2$ ppm	<2ppm
14	Protein	$\leq 0.1\%$	0.06%
15	Assay	$\geq 95.0\%$	97.0%
16	Glucuronic acid	$\geq 46.0\%$	46.9%

### Microbiological Test

17	Total bacterial count	$\leq 100$ CFU/g	<10CFU/g
18	Yeasts & mold	$\leq 20$ CFU/g	<10CFU/g
19	E. coli	Negative	Negative
20	Staph	Negative	Negative
21	Pseudomonas aeruginosa	Negative	Negative

**Conclusion: The results meet the requirements of the specifications.**