



BLOOMAGE FREDA BIOPHARM CO., LTD.

NO.678 TIANCHEN ST., HIGH-TECH DEVELOPMENT ZONE,
JINAN, CHINA 250101

CERTIFICATE OF ANALYSIS 15-E112703

Product Name: Sodium Hyaluronate LMW(HA-TLM)

Batch No.: 1511214

Quantity: 201kg

Production Date: Nov.21, 2015

Expiry Date: Nov.21, 2018

Item	Standard	Result
1. Characters	White or almost white powder or granules	Complied
2. Identification		
A. Infrared absorption	Consistent with the <i>reference spectrum of sodium hyaluronate</i>	Complied
B. Reaction of sodium	Positive	Complied
3. pH	6.0~7.5	6.4
4. Transparency	≥99.0%	99.9%
5. Loss on drying	≤10.0%	6.9%
6. Limiting viscosity	<17.3dl/g	15.8dl/g
7. Molecular weight	<1.00M Da	0.89M Da
8. Protein	≤0.05%	0.024%
9. Heavy metals	≤20ppm	<20ppm
10. Glucuronic acid	≥45.0%	45.2%
11. Sodium hyaluronate	≥93.0%	93.4%
12. Bacteria counts	<10cfu/g	Complied
13. Mold & Yeast	<10cfu/g	Complied
14. <i>Staphylococcus aureus</i>	Negative	Negative
15. <i>Pseudomonas aeruginosa</i>	Negative	Negative

Conclusion: up to the standard



Approved by: *[Signature]* 2015.11.27