

# CERTIFICATE OF ANALYSIS

## Gracefruit Ltd

Product Name: Hyaluronic Acid

Batch No. 1701081

Production Date: Jan.08,2017

Expiry Date: Jan.08, 2020

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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
PH	6.0-7.5	6.7
Transparency	>99.0%	99.8%
Loss on drying	<10.0%	6.9%
Limiting viscosity	< 17.3dl/g	17.00dl/g
Molecular Weight	<1.00M Da	0.98M Da
Protein	<0.05%	0.023%
Heavy Metals	<20ppm	<20ppm
Glucuronic acid	>45.0%	45.7%
Sodium hyaluronate	>93.0%	94.5%
Bacteria counts	< 10cfu/g	Complied
\fold & Yeast	< 10cfu/g	Complied
<i>Staphylococcus aureus</i>	Negative	Negative
<i>Pseudomonas Aeruginosa</i>	Negative	Negative