

## LINYICITYXINSHENGBIOTECHNOLOGYDEVELPMENTCO.LTD

### Certificate of Analysis

|                 |                           |                 |              |
|-----------------|---------------------------|-----------------|--------------|
| Product Name    | Chondroitin Sulfate USP36 |                 |              |
| Batch No.       | CCS20150708               | Quantity        | 2000kg       |
| Production Date | July 8, 2015              | Expiration Date | July 7, 2017 |

| Item                      | Specification  | Method                   | Results        |
|---------------------------|--|--------------------------|----------------|
| Appearance                | White powder or light yellow powder  | Visual                   | White powder   |
| Identification            | A: Infrared absorption spectrum same as standard's<br>B: A solution containing 0.5g in 10mL of water meets the requirements of the test for sodium | USP36<197><br>USP36<191> | Complies       |
| Specific rotation         | Between -20.0° and -30.0°<br>(test solution: 30mg/mL)  | USP36<781S>              | -26.1°         |
| Residual Solvents         | Ethanol ≤0.5%  | USP36                    | 0.5%           |
| Chondroitin Sulfate Assay | ≥90.0% CPC<br>≥90.0% HPLC  | USP36                    | 91.6%<br>90.8% |
| Loss on Drying            | ≤10.0%   | USP36<731>               | 7.5%           |
| Residue on Ignition       | Between 20.0% and 30.0%  | USP36<281>               | 26.1%          |
| Heavy Metals              | <10ppm   | USP36<231><br>method II  | Complies       |
| Lead                      | <0.5 ppm   | USP36                    | Complies       |
| As                        | ≤1ppm  | USP36                    | Complies       |
| Sulfate                   | ≤0.24%   | USP36                    | Complies       |
| Chloride                  | ≤0.5%  | USP36                    | Complies       |
| PH                        | Between 5.5 and 7.5 (test solution: 1 in 100)  | USP36<791>               | 6.1            |
| Content of Protein        | ≤6.0% (Dried Baasis)   | USP36                    | 2.4%           |
| Staph                     | Negative   |                          | Negative       |
| E.Coli                    | Negative   |                          | Negative       |
| Yeast & Mold              | NMT 100 cfu/g  |                          | Complies       |
| Salmonella                | Negative   |                          | Negative       |
| Clostridium               | Negative   | USP36                    | Complies       |
| Total Plate Count         | NMT 3000 CFU/G   | USP36<2021>              | Complies       |
| Particle size             | 100% through 80 mesh   | USP36                    | Complies       |
| Impurities                | <2%  | USP36                    | Complies       |

Country of Origin: China

Source of Origin: China

Storage Recommendations: Keep in a cool, well-ventilated and dry place.

Address: Huawu Road And Luo 7 Road Intersection Points Luozhuang Zone