

Certificate of Analysis

Manufacturing Data

| | | | |
|------------------|--------------------------|-----------------|---------------|
| Product Name | Reishi Extract | | |
| Botanical Source | <i>Ganoderma Lucidum</i> | | |
| Used Part | Sporocarp. | Batch Quantity | 100kg |
| Batch Number | 20110820 | Extract Solvent | Ethanol/Water |

Quality Data

| Identification | Standardization | Results | Test Methods |
|----------------------------------|-----------------------|-----------|----------------|
| Assay Data | 10:1 | Complied | TLC |
| Appearance | Fine brown powder | Complied | Visual |
| Odor & Taste | Characteristic | Complied | Organoleptic |
| Mesh Size | 90% through 80 meshes | 80 meshes | 80 Mesh Screen |
| Solubility | Soluble in water | Complied | Visual |
| Loss on Drying | 5.0% max | 3.27% | USP(731) |
| Residue on Ignition | 5.0% max | 4.64% | USP(281) |
| Loose Density | 0.40g/ml | 0.45g/ml | USP(616) |
| Tap Density | 0.55g/ml | 0.57g/ml | USP(616) |
| Aflatoxins B1 | 5ppb max | Complied | CP2010 V |
| Aflatoxins Sum of B1, B2, G1, G2 | 20ppb max | Complied | CP2010 V |
| Total Heavy Metals | 10.0 ppm max | Complies | CP2005 E |
| Pb | 0.5 ppm max | 0.29 ppm | AAS |
| As | 0.5 ppm max | 0.15 ppm | AAS |
| Pesticide Residues | 2.0ppm max | Complied | EP 2.8.13 |
| BHC | 0.1ppm max. | Complied | EP 2.8.13 |
| DDT | 0.1ppm max | Complied | EP 2.8.13 |

Microbiological Data

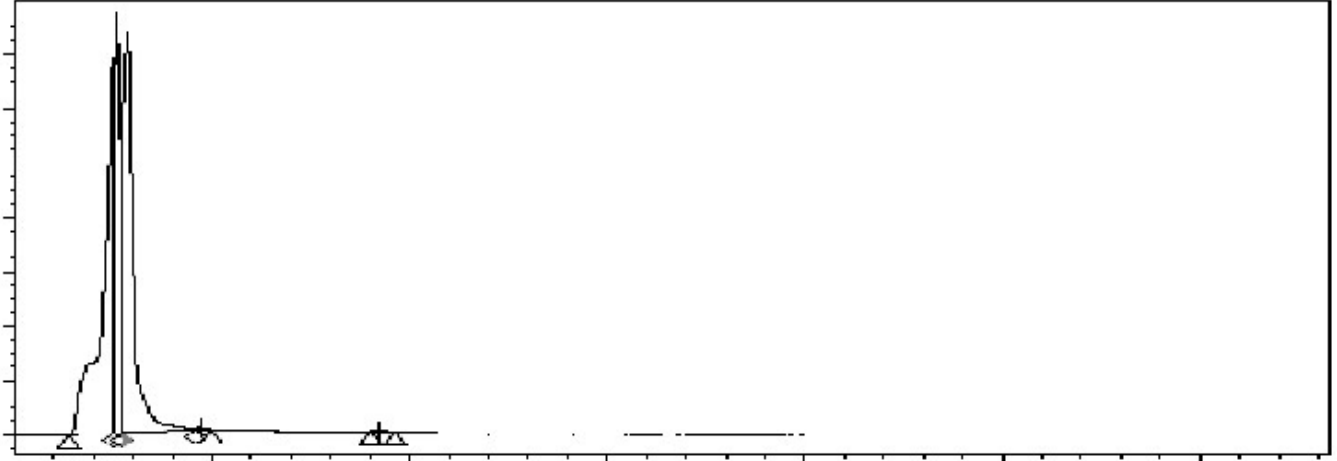
| | | | |
|-----------------------|----------------|----------|--------------|
| Total Plate Count | 1000cfu/g max. | 663cfu/g | GB/T 4789.2 |
| Yeast & Mold | 100cfu/g max. | 59cfu/g | GB/T 4789.15 |
| E.Coli & Salmonella | Negative | Complied | GB/T 4789.3 |
| Staphylococcus aureus | Negative | Complied | GB/T4789.10 |

Addition Data

| | |
|-------------|---|
| Storage | Store in a cool dry place, avoiding sunlight directly |
| Retest Date | Aug,19,2013 |
| Shelf life | Two years |
| Packaging | Food grade multiplayer polyethylene bags, 25kg in one type cardboard drum |

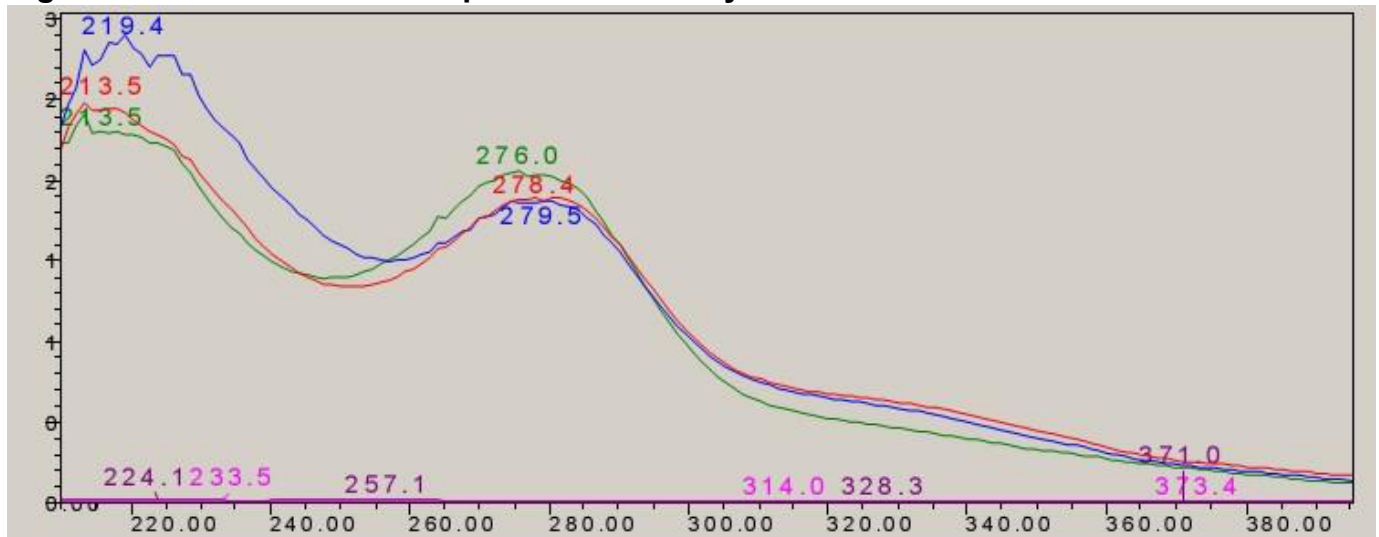
Fingerprint Analysis

Fig. 1. HPLC Fingerprint Triterpenoids with Detection Wavelength By 254nm



Note: 1. Reishi Extract Powder test solution 2284.6mg/25ml
 2. Horizontal Axis stands for Retention Time;
 3. Vertical Axis stands for Absorption Degree;
 4. Peak means a certain bioactive substance of Triterpenoids or it's derivatives. Each herb has it's characteristic bioactive substance and thus it's special peak graph, that can show whether the ingredient is extracted by expected herb.

Fig. 2. UV Spectrum Locus By 190nm ~ 400nm



Note: 1. Horizontal Axis stands for Wavelength;
 2. Vertical Axis stands for Absorption Degree;
 3. Each curve means a certain bioactive substance contained in Reishi Extract Powder. Not like synthetic chemical drug compounds, as the composition of herbal extracts is far more complex, so there are many curves under this wavelength range. Each herb has it's characteristic bioactive substance and thus it's special curve graph, that can show whether the ingredient sold is just a conscious adulteration.

HPLC Fingerprint Analysis Method:

1.1 Chromatographic Conditions:

Chromatographic Column: SP-120-5-C₁₈-AP(250 mm × 4.6 mm, 5µm)

Mobile Phase: Methanol : 0.5% Acetic acid (88:12, V/V)

Detection Wavelength: 254nm

Flow Rate: 1.0 mL/min

Column Temperature: 20°C

Injection: 20µl

1.2 Preparation Of Sample Solution:

Accurately weigh appropriate Reishi Extract Powder into a 25 ml volumetric flask. Add 80% methanol and sonicate for 30 mins. After cool to room temperature, dilute to volume with 80% methanol. Filter through a 0.45µm filter into an HPLC vial or centrifuge to obtain a clear test solution.