



Material Tested

ECM / ORGANIC SHIITAKE RM

For: TRUE GRACE

Lot #: 220111-BTSME210917

Botanical: *Lentinula edodes* (Berk.) Singer [Tricholomataceae],
Mushroom

Sample ID: 22080YEH_1, Plate #: 173098

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



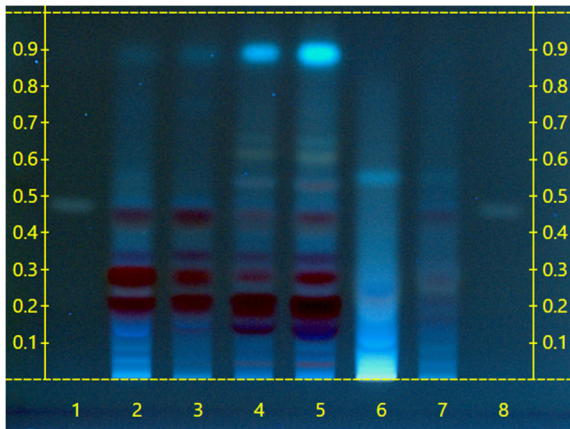
This sample conforms to *Lentinula edodes*, Mushroom

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



Lanes 4 & 5 show the sample being tested.

Lanes 2 & 3 show the reference material used to compare with the sample.

We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.





Material Tested

ECM / ORGANIC CHAGA RM

For: TRUE GRACE

Lot #: 220111-BTCME210925

Botanical: *Inonotus obliquus* (Pers.: Fr.) Pilat [Hymenochaetaceae],
Mushroom

Sample ID: 22080RAX_1, Plate #: 173097

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



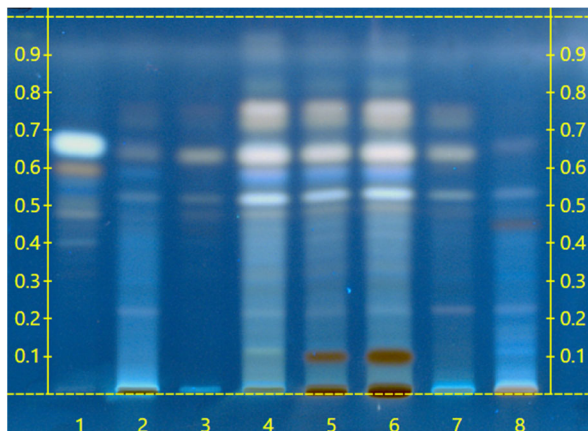
This sample conforms to *Inonotus obliquus*, Mushroom

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



Lanes 5 & 6 show the sample being tested.

Lane 2, 7 shows the reference material used to compare with the sample.

We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.





Material Tested

ECM / ORGANIC LION'S MANE RM
For: TRUE GRACE
Lot #: 220111-BTLME210917
Botanical: *Hericium erinaceus*, Mushroom
Sample ID: 22080EEQ_1, Plate #: 173093

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



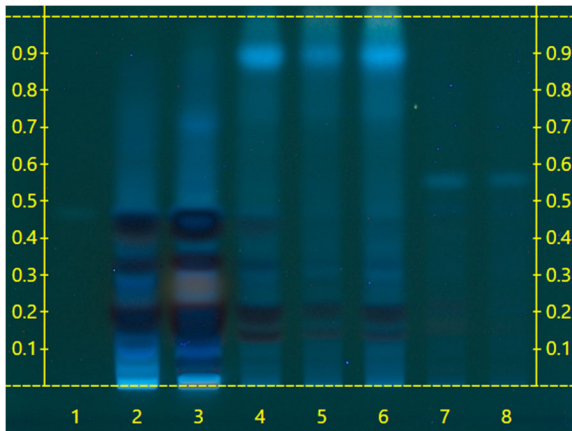
This sample conforms to *Hericium erinaceus*, fruiting body

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.

Lanes 5 & 6 show the sample being tested.

Lanes 2 & 3 show the reference material used to compare with the sample.





Material Tested

ECM /ORGANIC MAITAKE RM

For: TRUE GRACE

Lot #: 220111-BTMME211014

Botanical: *Grifola frondosa* (Dicks.: Fr.) S.F. Gray [Polyporaceae],
Mushroom

Sample ID: 22080VSN_1, Plate #: 173090

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



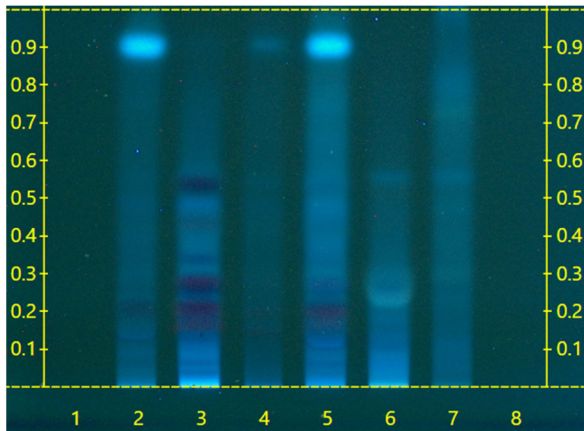
This sample conforms to *Grifola frondosa*, fruiting body

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



Lanes 4 & 5 show the sample being tested.

Lanes 2 & 3 show the reference material used to compare with the sample.

We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.





Material Tested

ECM / ORGANIC REISHI RM

For: TRUE GRACE

Lot #: 220111-BTGLE210915

Botanical: *Ganoderma lucidum* s.l. (Curtis: Fr.) P. Karst.
[Ganodermataceae], Mushroom

Sample ID: 22080XOJ_1, Plate #: 173089

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



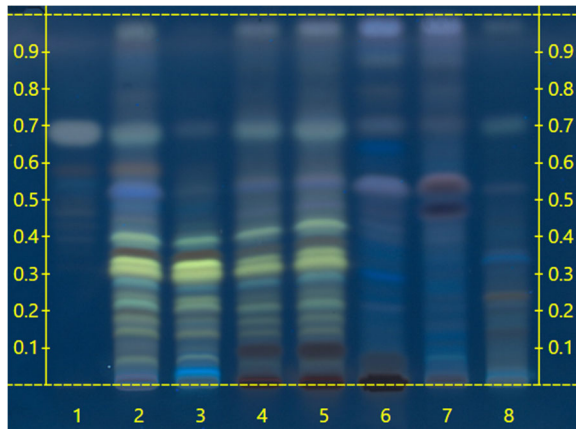
This sample conforms to *Ganoderma lucidum* s.l., fruiting body

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



Lanes 4 & 5 show the sample being tested.

Lanes 2 & 3 show the reference material used to compare with the sample.

We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.





Material Tested

ECM / ORGANIC TURKEY TAIL RM

For: TRUE GRACE

Lot #: 220111-BTCVE210904

Botanical: *Trametes versicolor* (L.: Fr.) Pilat [Polyporaceae], Mushroom

Sample ID: 22080JVU_1, Plate #: 173128

What We've Tested

We tested this sample by High Performance Thin Layer Chromatography. HPTLC is a technique for separating phytochemical compounds within plant material, as well as other chemical compounds, to verify its identity and/or purity.



Conclusion: Identity



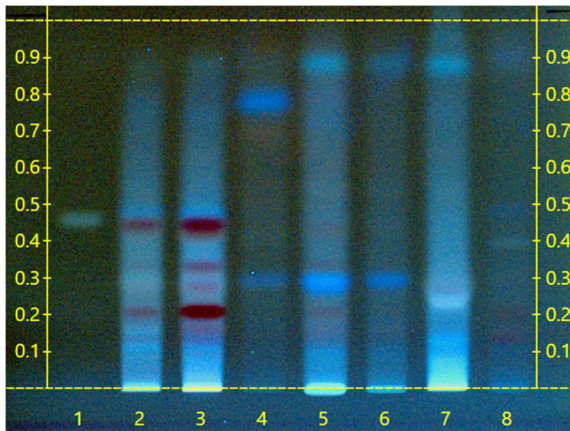
This sample conforms to *Trametes versicolor*, fruiting body

We tested the sample against known authenticated reference materials to affirm identity, when applicable.



Test Details

High Performance Thin-Layer Chromatography



Lanes 5 & 6 show the sample being tested.

Lanes 2 & 3 show the reference material used to compare with the sample.

We tested the sample against different parts of the same plant when possible and as needed.

We tested this sample against known adulterants when applicable.





Material Tested

ECM / SIZ MUSHROOM /ORG MYCO-RENEW

For: TRUE GRACE

Lot #: 040522-BTCE2201

Analyte: Beta-glucans by UV/Vis

Sample ID: 22097MRP

What We've Tested

We tested this sample by Ultraviolet / Visible Spectroscopy, a common analytical instrument used to measure the amount of compounds in a sample.



Conclusion: Potency



This sample contains 451 mg beta-glucans per gram.

UV-Vis spectroscopy is an analytical technique that uses interaction of light with specific chemical components in a sample.



Test Details

Understanding UV/Vis Analysis

Result	Specification	Conclusion
451 mg/g	Not less than 250 mg/g	Pass

The absorption of light at a specific wavelength is directly proportional to the concentration of the absorbing substance in the sample.

Beta-glucans are a group of chemical compounds known as polysaccharides found in mushrooms. Many mushroom extracts are prepared to target a high concentration of these compounds.

The sample was tested for Beta-glucan content to ensure that its label claim is met. It is prepared in duplicate to verify the analysis was completed correctly, then the average of two results are reported.

UV/Vis is often used to measure groups of compounds in a sample as opposed to a single chemical constituent.





Material Tested

ECM / SIZ MUSHROOM /ORG MYCO-RENEW

For: TRUE GRACE

Lot #: 040522-BTCE2201

Sample ID: 22097MRP

What's on the report

We tested this sample by multiple analytical techniques to screen for pesticide residues and heavy metal contaminants, following USP guidelines.



Conclusion: Purity



This sample meets USP <561> limits for pesticide residues and elemental impurities (heavy metals contaminants.)

What is the USP?

USP is the United States Pharmacopeia, an independent, non-profit organization that publishes peer reviewed standards for the pharmaceutical and dietary supplement industries.



Test Details

Contaminant screening results

Method	Requirement	Result
Elemental Impurities: Lead, Arsenic, Cadmium, Mercury	USP <561> limits	Pass
Pesticide Residue Screening: 115 individual compounds	USP <561> limits	Pass

Understanding Contaminant Testing

Plants can pick up contamination, including heavy metals from the soil and environment. Inductively Coupled Plasma Mass Spectrometry (ICP-MS) is used to determine heavy metals in botanicals and dietary supplements.

Although pesticides are considered a single category, it takes two instruments, LC-MS/MS and GC-MS/MS, and a total of four separate instrument runs to test for all 115 pesticide residues required by USP <561>.

USP <561> (Articles of Botanical Origin) is the USP guideline that provides the limits for the above contaminants.

These tests are designed to ensure the products do not contain unacceptable levels of contaminants.

The methods used are fully validated up to industry standards.

