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## Table S1. Unique features of KEGG pathway among three groups

Cordyceps militaris (L.) Link cultured on Tussah silkmoth pupae
Biosynthesis of amino acids
Biosynthesis of plant secondary metabolites
Non-alcoholic fatty liver disease (NAFLD)
Phenylalanine, tyrosine and tryptophan biosynthesis
Lysine biosynthesis
Meiosis - yeast
Synthesis of 3'-deoxyadenosine
Insulin signaling pathway
Ascorbate and aldarate metabolism
Protein digestion and absorption
Epithelial cell signaling in Helicobacter pylori infection
FoxO signaling pathway
Lysine degradation
Aminoacyl-tRNA biosynthesis
2-Oxocarboxylic acid metabolism
Type II diabetes mellitus
Cysteine and methionine metabolism

Prolactin signaling pathway
Insulin secretion
HIF-1 signaling pathway
Penicillin and cephalosporin biosynthesis
Thyroid hormone synthesis
Atrazine degradation
Streptomycin biosynthesis
Insect hormone biosynthesis
Stilbenoid, diarylheptanoid and gingerol biosynthesis
Cutin, suberine and wax biosynthesis
Biotin metabolism
Linoleic acid metabolism
Glycolysis / Gluconeogenesis
C5-Branched dibasic acid metabolism
Novobiocin biosynthesis
Butirosin and neomycin biosynthesis
Vitamin digestion and absorption
Toluene degradation
Nicotinate and nicotinamide metabolism

Indole alkaloid biosynthesis
Biosynthesis of unsaturated fatty acids
Benzoate degradation
Biosynthesis of alkaloids derived from ornithine, lysine and nicotinic acid
Flavonoid biosynthesis
Tropane, piperidine and pyridine alkaloid biosynthesis
Glucosinolate biosynthesis
Ubiquinone and other terpenoid-quinone biosynthesis
Amino sugar and nucleotide sugar metabolism
Steroid hormone biosynthesis
Polycyclic aromatic hydrocarbon degradation
Degradation of aromatic compounds
Cordyceps militaris (L.) Link cultured on rice
Lipoic acid metabolism
Taurine and hypotaurine metabolism
Riboflavin metabolism
Styrene degradation
Fructose and mannose metabolism
Pentose and glucuronate interconversions

## Cordyceps sinensis

Plant hormone signal transduction

Parkinson's disease

Oxidative phosphorylation

Salivary secretion

Carbon fixation in photosynthetic organisms

Vascular smooth muscle contraction

Peptidoglycan biosynthesis

Pantothenate and CoA biosynthesis

Glycine, serine and threonine metabolism

Note: KEGG, Kyoto Encyclopedia of Genes and Genomes, a collection of databases dealing with biological pathways and chemical substances, were used for data analysis in metabolomics.