

Table S5 Phylogenetical status of the mushrooms used in this study.

No.	Species	Family	Order	Class
1	<i>Flammulina velutipes</i>	Physalacriaceae	Agaricales	Agaricomycetes
2	<i>Wolfiporia cocos</i>	Polyporaceae	Polyporales	Agaricomycetes
3	<i>Pleurotus ostreatus</i>	Pleurotaceae	Agaricales	Agaricomycetes
4	<i>Pleurotus eryngii</i>	Pleurotaceae	Agaricales	Agaricomycetes
5	<i>Ganoderma lingzhi</i>	Ganodermataceae	Polyporales	Agaricomycetes
6	<i>Lentinula edodes</i>	Marasmiaceae	Agaricales	Agaricomycetes
7	<i>Inonotus sanghuang</i>	Hymenochaetaceae	Hymenochales	Agaricomycetes
8	<i>Oudemania siellaradicata</i>	Physalacriaceae	Agaricales	Agaricomycetes
9	<i>Auricularia polytricha</i>	Auriculariaceae	Auriculariales	Agaricomycetes
10	<i>Hypsizygus marmoreus</i>	Lyophyllaceae	Agaricales	Agaricomycetes
11	<i>Morchella importuna</i> ^a	Morchellaceae	Pezizales	Pezizomycetes
12	<i>Cordyceps militaris</i> ^a	Cordycipitaceae	Hypocreales	Sordariomycetes

a: belongs to *Ascomycota*, others belong to *Basidiomycota*.