Molecular analysis of polysaccharide accumulation in *Dendrobium nobile* infected with the mycorrhizal fungus *Mycena* sp.

Qing Li, Bing Li, Li-Si Zhou, Gang Ding, Biao Li* & Shun-Xing Guo*

Institute of Medicinal Plant Development, Peking Union Medical College, Chinese Academy of Medical Sciences, Beijing 100193, People's Republic of China

*Corresponding author: B. L. libiao@126.com; S. X. G. sxguo1986@163.com

Supplementary Table 1. Primers designed for qRT-PCR.

Supplementary Table 2. Unigenes involved in mannose metabolism and respiration.

Supplementary Table 1. Primers designed for qRT-PCR.

Genes	Unigene ID	forward primer sequence (5'-3')	reverse primer sequence (5'-3')
petJ	c75563_g2	CCTCACCTTATCCATTCCTCTCCTC	TCCTCTTCTGTTACCAATCCATTCC
petF	c72738_g2	CCTGAGCAGACTGTGGAGATTGAG	ACAGGAAGAGCACGCACCAG
bcsA	c92372_g2	CCTGCGAGTGCGAGTTCAAGAT	ACCTCCTCCACATCAGTAGCCTTAT
SUS	c89528_g2	ACTCCTTGTGGTCATCACCTTGAGA	ACTGTTCCATTGCCAGAAGCCTTG
glgA	c85783_g1	TGTGGTGGTGTCTGTTATGGAGATG	CGTCCCTGGTGTGCTATATTGTGTA
PMM	c87473_g1	GGTAGTTACAGTTGGTGTCGTTGGA	GGTCAGCAATATAATGGAGCGTGAA
GMPP	C78968_g3	GCTGCTTGATTGGTCCTGATGTTG	TGCCGCCATTGCTGTAGATTTCA
DLAT	C79925_g1	CAACAACCAAGGCTTCTTCCACAGT	TCACAGAGCACTTCACCAGGAGAG
PDHB	C86762_g1	AATGGTGCTGCTGCTGGAGTTG	ACAGGGAAGGATTCGCCGTATAGT
CS	c84968_g3	GGACCTCTTCATGGCTTGGCTAAT	ATGACCGTAACCAGGCACAACC
SDHA	c86957_g3	TGGTGCTGGCTGTCTCATTACTG	TGGAGGTAGGTGATTCAGGTGTAGA
PFK	c86638_g1	GCTGGTTATGTTCTGGAGGATGTG	TGCTTGACAACTGAATATGCTGGAT
PGK	c89109_g2	CGATGGCAACCTCAAGATCAACGA	ACAAGATGACAGCAGAGAAGCAAC T

Supplementary Table 2. Unigenes involved in mannose metabolism and respiration

Direction of Carbon Flow	Pathway	Gene Name	Number	Unigene ID
Biosynthesis	Fructose and mannose metabolism	phosphomannomutase (*PMM*)	1	c87473_g1
		mannose-1-phosphate guanylyltransferase (G*MPP*)	4	c78968_g3, c83966_g1 c85209_g4, c82316_g3

Consumption	Cirtrate cycle (TCA cycle)	pyruvate dehydrogenase E2 component (dihydrolipoamide acetyltransferase) （DLAT）	4	c79925_g1, c91244_g2 c90714_g7, c78811_g1
		pyruvate dehydrogenase E1 component beta subunit(*PDHB*)	3	c86762_g1, c84071_g1 c75446_g1
		succinate dehydrogenase (ubiquinone) flavoprotein subunit (*SDHA*)	1	c86957_g3
		citrate synthase (*CS*)	1	c84968_g3
	Glycolysis / Gluconeogenesis	6-phosphofructokinase 1 *(PFK*)	10	c86638_g1, c86638_g2 c72057_g1, c49542_g2 c90207_g3, c92755_g1 c75196_g1, c75196_g2 c49542_g1, c87231_g1