

菌肥协同亚硒酸钠提高芥菜贮藏品质的转录组分析

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Transcriptomic Analysis of Microbial Fertilizer Synergizing with Sodium Selenite to Improve Storage Quality of Leaf Mustard

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21 附录:

22 附表 1 引物信息

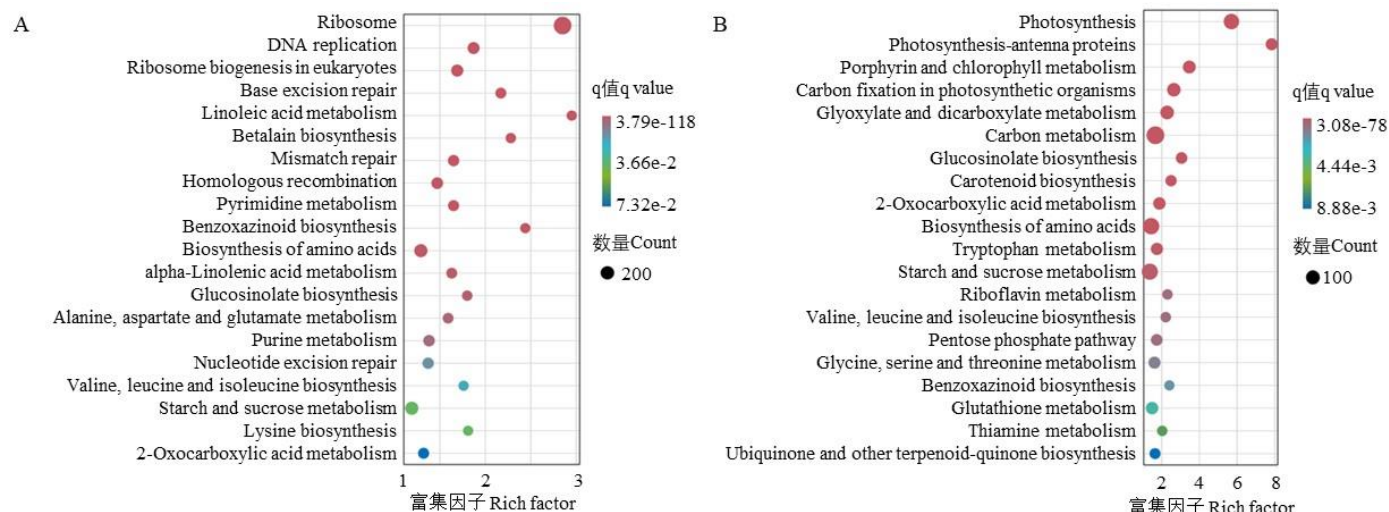
23 Supplementary Table 1 Primer information

登录号或基因 ID	功能注释	正向引物序列	反向引物序列	PCR 产物长度
Accession No. or gene ID	Functional annotation	Forward primer sequence (5'-3')	Reverse primer sequence (5'-3')	PCR product length (bp)
MN566462.1	<i>Actin</i>	CACGGTGTGTGAGCAACTG	GCGATACGGAGCTCGTTGTA	74
BjuA043629	<i>CAT2</i>	AACGTGCGCAGACTTCCTTA	CAAGGTCTCGGGACTTCCAC	97
BjuB009097	<i>CAT1</i>	CGGTTCTGATATCTGCGGCT	TGCACCAAACCACCTCTTGT	112
BjuB020483	<i>GST-U9</i>	GCCCTCGAGCTTAAATCCGT	CTTTGTGGACGAGAACCGGA	118
BjuB020608	<i>POD71</i>	TTTTTGGCGCAGCTTCAGAC	ACAATGGGTCTAGTTGCGGG	179
BjuB020635	<i>POD71-like</i>	GAGGAACAAGTTGGCCCGTA	TGAGTCCCAAAGCGGAGAAC	132
BjuB025351	<i>APX1</i>	GACAAGGCTCTGTTGGACGA	CCCGAGCTCAGAAAGCTTCA	117
NewGene_19805	<i>APX2</i>	TTGGACGATCCTGTGTTCCG	ATCCCCACCACACATCAC	143
BjuA009959	<i>GPX2</i>	CAAGGTGGATGTGAACGGGA	GCCGTACGGAGAAACCAAGA	124
NewGene_11762	<i>PAL1</i>	GGCTGATCTCGAGTCGGAAG	GCAACCAAGTAGGTCGTGGA	73
NewGene_9849	<i>PAL-like</i>	TCATACCGCTCGCTTGACTC	ATCGGAACCTTGGACGGAAC	159
BjuA009911	<i>C4H1</i>	GGGGAGAGAAGCAGGTTGAC	AGCCTCTAAGGAACGGCCTA	82
BjuO013195	<i>C4H2</i>	AGGCCGTTCTTAGAGGCTA	GCGCATTTCAATCCATCGCT	140
NewGene_4719	<i>4CL2</i>	ATTACACGTCGCATGCTCA	GTGGACAGCACCTACAGCAA	85
BjuA012718	<i>4CL4</i>	ATACACGAGGCTGAGATCG	CGAAACTATCAGAACGCCG	122
BjuA012842	<i>CHS1</i>	CGTGTTTGATTCCAGCCTGT	GGTGATCCAGCCATCCAACA	141
BjuB012948	<i>CHS2</i>	CGACACGTCCTTAACCACCA	GCAATCAAGCCGAGCAACTT	108
BjuA014411	<i>CHI1</i>	TCTCCTCTCACCGTTCGTCT	GCAACGGATTTCGGAGCTAGA	73
BjuA021239	<i>CHI3</i>	TGGTGAAATCCGCAGCTTCT	CGAGCAAGGAGAGCGTTGTA	123
NewGene_804	<i>F3H1</i>	AATGGCGAGCACCTGAAAGT	ACCAGCGATTCTGGAGCAAA	76
BjuA045803	<i>F3H3</i>	CTTTTGTCTCCGGGAAAGC	CCTCGCCTGTAGATAGCACG	73

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采样时间	样品编号	Clean reads	GC 含量	≥Q30 (%)	比对读数	比对比率
Sampling time (d)	Sample No.		GC content (%)		Mapped reads	Mapped ratio (%)
0	CK-1	20,288,241	47.06	97.64	37,349,048	92.05
	CK-2	19,654,659	47.13	97.68	36,270,841	92.27
	CK-3	20,337,804	47.12	97.66	37,495,492	92.18
	Se-1	21,107,471	47.04	97.00	38,227,354	90.55
	Se-2	20,566,091	47.09	97.43	37,388,743	90.90
	Se-3	20,931,424	47.01	96.88	37,882,266	90.49
	MF+Se-1	20,786,624	47.68	97.10	38,343,382	92.23
	MF+Se-2	21,882,392	47.65	96.18	40,185,618	91.82
	MF+Se-3	20,133,296	47.74	97.92	37,373,996	92.82
6	CK-1	21,210,086	46.53	97.05	38,848,673	91.58
	CK-2	20,238,305	46.50	97.63	37,201,894	91.91
	CK-3	19,640,715	46.50	97.51	36,050,298	91.77
	Se-1	22,329,704	46.70	96.87	40,961,794	91.72
	Se-2	21,697,206	46.75	97.00	39,815,824	91.75
	Se-3	20,827,834	46.68	97.55	38,299,670	91.94
	MF+Se-1	19,557,347	46.80	97.87	35,486,640	90.72
	MF+Se-2	20,495,606	46.52	97.67	37,664,699	91.88
	MF+Se-3	24,286,243	46.59	96.97	44,384,328	91.38

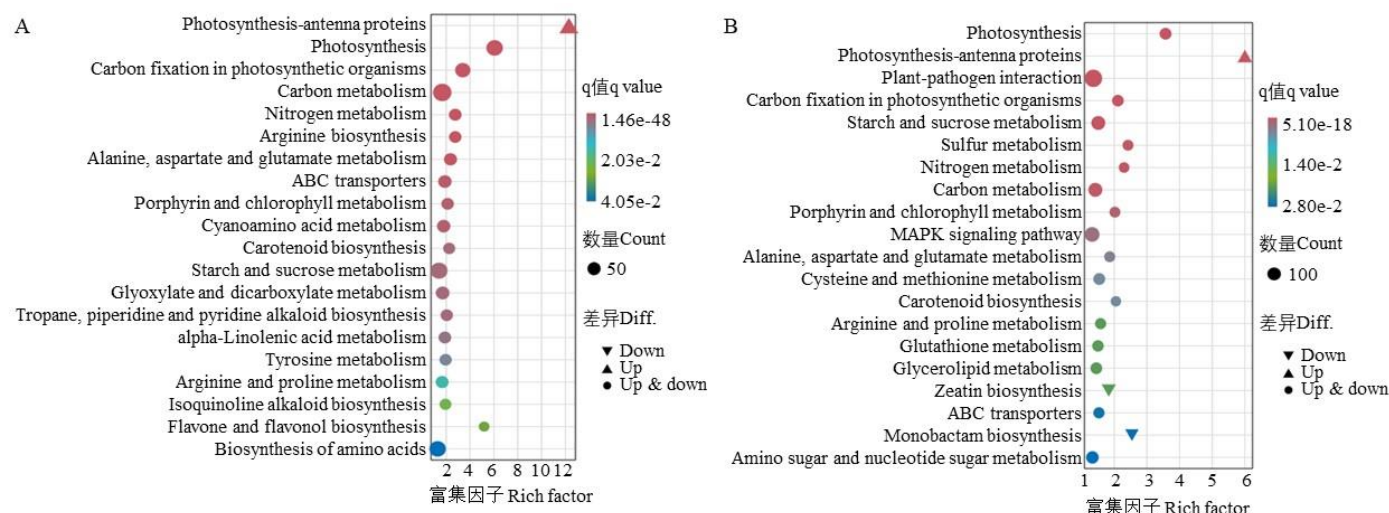


A: CK vs. Se 比较组中 DEGs 的 KEGG 富集分析; B: CK vs. MF+Se 比较组中 DEGs 的 KEGG 富集分析

A: KEGG enrichment analysis of DEGs from the CK vs. Se comparison group; B: KEGG enrichment analysis of DEGs from the CK vs. MF+Se comparison group

附图 1 紫色芥菜在贮藏前 (0 d) 各处理的比较转录组分析

Supplementary Fig. 1 Comparative transcriptomic analysis of different treatments in purple leaf mustard before storage (at 0 d)

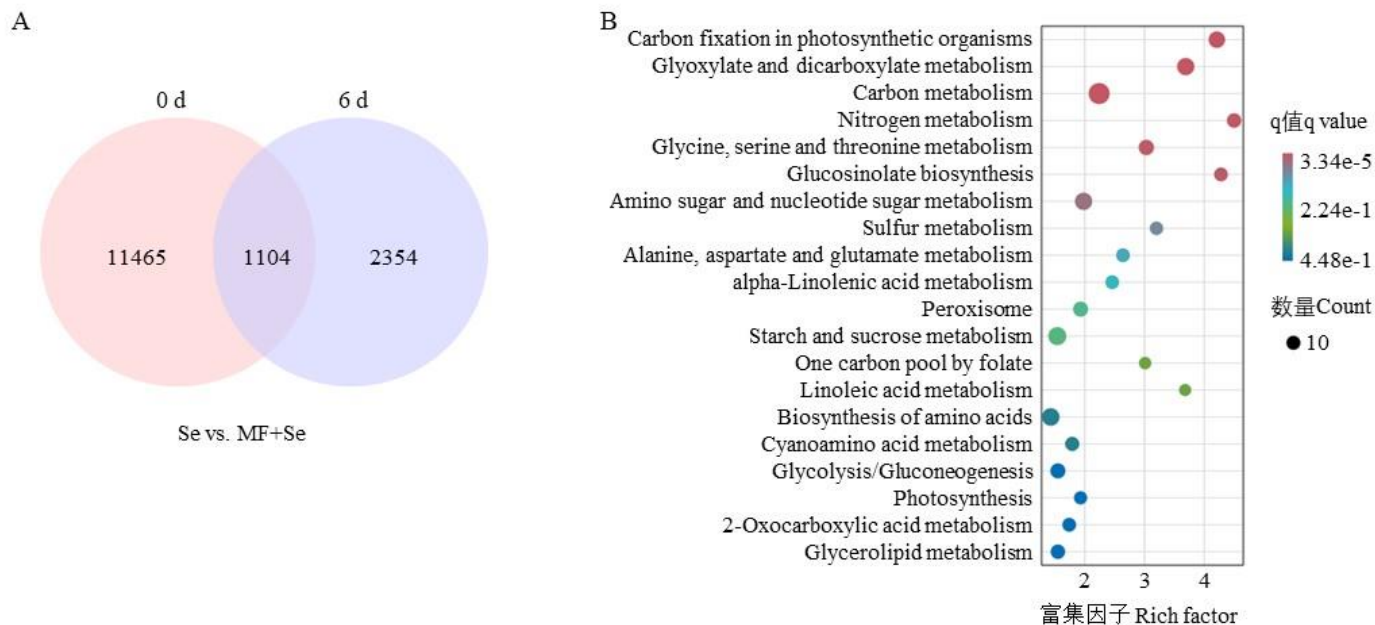


A: CK vs. Se 比较组中 DEGs 的 KEGG 富集分析; B: CK vs. MF+Se 比较组中 DEGs 的 KEGG 富集分析

A: KEGG enrichment analysis of DEGs from the CK vs. Se comparison group; B: KEGG enrichment analysis of DEGs from the CK vs. MF+Se comparison group

附图 2 菌肥与富硒结合处理的紫色芥菜在贮藏 6 d 时的转录组差异

Supplementary Fig. 2 Transcriptomic differences in purple leaf mustard subjected to combined treatment of microbial fertilizer and selenium enrichment at 6 d of storage



A: 韦恩图; B: 0 d 和 6 d 比较组中共同 DEGs 的 KEGG 途径富集分析

A: Venn diagram. B: KEGG enrichment analysis of common DEGs at 0 d and 6 d comparison groups

附图 3 紫色芥菜在贮藏期间 0 d 和 6 d 时 Se vs. MF+Se 比较组的转录组差异

Supplementary Fig. 3 Transcriptomic differences of the Se vs. MF+Se comparison group in purple leaf mustard during storage at 0 d and 6 d