

Expression Level of PDX1 Gene in Garlic Bulbs

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Abstract— Vitamin B₆ (pyridoxine) is a water-soluble vitamin that living organisms requires it for several enzymatic reactions. It plays role as a co-factor of many enzymes in lipid glucose, and amino acid metabolism. The metabolically active form of vitamin B₆ is pyridoxal 5-phosphate. PDX1 (pyridoxal phosphate synthase protein) is the enzyme involving in vitamin B₆ biosynthesis. Garlic bulbs are important dietary sources for vitamin B₆ and there is no available information on the expression level of genes that play role in biosynthesis of vitamin B6 in garlic during storage period of garlic bulbs after harvest. In this study, we revealed the changes in expression level of PDX1 gene in garlic bulbs during three month-storage period at cold and ambient temperatures. We detected significant changes in gene expression level of PDX1 gene in bulbs stored at both temperatures.

Keywords—*Garlic, gene expression, PDX1, vitamin B6*


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	Research interests are plant molecular biology, garlic genetic and breeding, gene expression and transcriptomic.
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