

不同栽培種麥門冬葉子的超氧歧化酶與麩胱甘肽遇氧化酶活性

Activities of Superoxide Dismutase and Glutathione Peroxidase in Leaves of Different Cultivars of *Liriope Spicata* L. on 10% SDS-PAGE Gels

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摘要

利用 10% SDS-PAGE 方法檢測不同麥門冬栽培種葉子（小葉、大葉、細葉）粗細液中超氧歧化酶與麩胱甘肽遇氧化酶活性。利用抑制活性方法，發現所有品種都含有銅鋅超氧歧化酶，分子量介於 30 到 50kDa。所有品種也都含有胱甘肽遇氧化酶，分子量介於 50 到 64kDa。熱安定性方面，超氧歧化酶異構酶在 40 到 65°C 都安定，但是 70 與 80°C 加熱五分鐘則失去酵素活性；但是所有品種中的胱甘肽遇氧化酶異構酶在 80°C 加熱 5 分鐘都安定，其中小葉與細葉的麩胱甘肽遇氧化酶在 80°C；加熱 30 分鐘都還有活性。

Abstract

Activities of superoxide dismutase (SOD) and glutathione peroxidase (GPx) in leaf crude extracts of different cultivars (small leaf, SL, big leaf BL, thin leaf, TL) of *Liriope spicata* L. were detected on 10% SDS-PAGE gels. All cultivars contained different Cu/Zn SOD isozymes with molecular masses between 30 and 50 kDa, which were identified by inhibitor tests. They also contained different GPx isozymes with molecular masses between 50 and 64 kDa. It was found that SOD isozymes were stable during 40 to 65°C treatment, however, no SOD activity could be detected at either 70 or 80°C for 5 min. In contrast, all GPx isozymes were stable under 80°C for 5 min, and GPx in SL and TL cultivars could resist 80°C treatment for 30 min.