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Preparation of superoxide dismutase LIPOzyme in hollow fiber membrane module

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ABSTRACT

Liposome-loaded membrane module (LLM) was prepared in hollow fiber module (HF-LLM), where the liposome was loaded into the hollow fiber membrane. The filtration property of the LLM was characterized. The oxidized and fragmented superoxide dismutase (SOD) was applied to the prepared LLM to separate the peptide to give a SOD-like activity on the liposome membrane, resulting in the recovery of the specific peptide. It was found that the SOD-like activity could be obtained in the SOD LIPOzyme prepared, resulting in the effective elimination of the superoxide in the HF-LLM.

Keywords: Membrane module; LIPOzyme; Membrane stress biotechnology; Antioxidative enzyme

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