

表面活性剂双水相的性质及其应用 II: 表面活性剂双水相在生物活性物质中的应用

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摘要 测定了胰蛋白酶在表面活性剂双水相中的分配比, 检测了分配在双水相中酶的活力及构象变化, 并与阴离子表面活性剂十二烷基硫酸钠(SDS)、阳离子表面活性剂溴化十二烷基三乙铵(C12NE)对酶活性及构象的影响进行了对照。结果表明,

SDS对蛋白质的变性明显强于C12NE。阳离子表面活性剂过量的双水相体系, 简称阳离子双水相,

其中的SDS与C12NE由于库仑引力和疏水相互作用力, 使得SDS较难被胰蛋白酶吸附,

胰蛋白酶在阳离子双水相中的活性没有丧失。其构象亦未发生显著变化。

关键词 [紫外分光光度法](#) [表面活性剂](#) [胰蛋白酶](#) [生物活性物质](#) [十二烷基硫酸钠](#) [溴化十二烷基三乙铵](#)

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The nature of aqueous surfactant two phases (AS2P) II: The application of AS2P in biological active substance

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Abstract In this report, we determined the distribution of trypsin in the Aqueous Surfactant Two Phases (AS2P). The influence of SDS, C12NE and AS2P on the activity and conformation of trypsin was compared. The results showed that the denaturation efficiency of SDS is much higher than that of C12NE, while the optimal mixture of SDS and C12NE, which forms AS2P, has the least effect on trypsin. In AS2P the interaction of SDS with C12NE was strong, due to the electrostatic and the hydrophobic interactions, SDS could hardly be adsorbed by the enzyme molecule. So that, trypsin in AS2P was not changed both in activity and conformation.

Key words [ULTRAVIOLET SPECTROPHOTOMETRY](#) [SURFACTANTS](#) [TRYPSIN](#) [BIOACTIVE SUBSTANCE](#) [LAURYL SODIUM SULFATE](#)

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