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Triton X-100对血红蛋白/阿昔洛韦/Triton X-100/H₂O体系中血红蛋白特性的影响

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收稿日期 2005-12-29 修回日期 2006-12-22 网络版发布日期 2007-4-20 接受日期

摘要 通过紫外-可见光谱、荧光、高效液相色谱、电导率、动电位和负染-电镜等方法; 研究了Triton X-100对血红蛋白/阿昔洛韦/Triton X-100/H₂O体系中血红蛋白特性的影响。结果表明; 随着Triton X-100浓度的增加; 体系中游离阿昔洛韦的百分数从58~63% 增加到90~94%; 阿昔洛韦对血红蛋白的静态猝灭常数和缔合数均减小; 体系中蛋白的荧光、电导率、动电位、荧光偏振及形貌等特性均向着蛋白原有的特性恢复的趋势。在低Triton X-100浓度条件下; 大部分Triton X-100都与蛋白结合。

关键词 [影响](#) [特性](#) [血红蛋白](#) [Triton X-100](#) [阿昔洛韦](#)

分类号

Influences of Triton X-100 on Hemoglobin Behaviors in Hemoglobin/Acyclovir/Triton X-100/H₂O System

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Abstract The influences of Triton X-100 on hemoglobin (Hb) behaviors were studied by the methods of UV-Vis spectrum, fluorescence spectrum, HPLC, conductivity, zeta potential and negative-staining transmission electron microscope in Hb/acyclovir/Triton X-100/H₂O system. With the increase of Triton X-100 concentration in the system, the percentage of the free acyclovir increased from 58%—63% to 90%—94%. The static quenching constant and the association number of acyclovir to Hb decreased. The fluorescence spectrum, conductivity, zeta potential, fluorescence polarization and negative-staining morphology of Hb tended to recover to those of the original state of Hb in the same concentration of Hb. The interaction between Triton X-100 and Hb is stronger than that between acyclovir and Hb. Most Triton-X-100 was associated with Hb at low Triton X-100 concentration. But the interaction of Triton X-100 with Hb was apparently dominant in high Triton X-100 concentration. The Hb structure was unfolded and finally denatured.

Key words [influence](#) [behavior](#) [hemoglobin](#) [Triton X-100](#) [acyclovir](#)

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