### 论著

## 恶性疟原虫融合蛋白PfCP-2.9自由巯基的测定

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摘要

目的 检测由毕氏酵母表达的恶性疟原虫融合蛋白(Plasmodiumfalciparumchimericprotein) PfCP-2.9的自由巯基。方法使用反向高压液相层析和Ellman氏反应进行检测。用反向高压液相,检测了3种样本,PfCP-2.9、PfCP-2.9经二硫苏糖醇还原、PfCP-2.9经吲哚乙酸烷基化。结果两种检测方法均表明PfCP-2.9不含任何自由流基。结论由毕氏酵母表达的PfCP-2.9中的半胱氨酸残基所含有的硫基均已氧化形成二硫键。

关键词 恶性疟原虫 融合蛋白 反向高压液相 Ellman氏反应 自由巯基

分类号

# Determination of Free Thiols in the Chimeric Protein PfCP-2.9 of Plasmodium faldparum

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#### Abstract

Objective To determine the free thiols in the chimeric protein PfCP-2. 9 of Plasmodium falciparum expressed by Pichia pastoris. Methods Two experiments of reverse phase HPLC and Ellman's reaction were applied to the PfCP-2.9 for the determination of its free thiols. For RP-HPLC analysis, three kinds of samples were tested: PfCP-2. 9, dithiothreitol-reduced PfCP-2.9 and indoacetic acid-alkylated PfCP-2.9. Results Both experiments showed that there were no any free thiols present in the PfCP-2. 9. Conclution The disulfide bonds between cysteine residues of PfCP-2. 9 were formed completely.

Key words <u>Plasmodium falciparum</u> <u>chimeric protein</u> <u>reverse phase HPLC</u> <u>Ellman'</u> <u>reaction</u> <u>free thiol</u>

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