参考文献

1 林黎明. 导数值导数光谱法测定万氏牛黄清心丸中黄连总生物碱的含量. 中国中药杂志,1990,15(1):32

2 赵陆华,蔡星瀛,董善士等. HPLC法测定黄连、黄柏及其中成药中小檗碱型生物碱的含量. 中国药科大学学报,1989,20(2):82

3 Tetsuo Misaki, Kazuhiko Sagara, Mitsuharu Ojima, *et al*. Stimultaneous determination of berberine, palmatine and coptisine in crude drugs and orieutal pharmaccutical preparations by ino-pair high-performance liquid chromatography. *Chem Pharm Bull*, 1982, 30(1):354

4 John A. *Adamovics Chromatographic Analysis of Pharmaceuticals Chromatographic Science Series*; *Volume* 49. New Youk: Marcel Dekker. Inc. 1990, 186

Determination of Berberine-type Alkaloids in Wanshi Niuhuang Qingxin Wan by HPLC

Wen Liyu, Li Kangle[1]

Yanzhou Institute of Drug Control, 225001; [1]*Analysis and Computer Center*, *China Pharmaceutical University*, *Nanjing* 210009

Abstract This paper describes separation and determination of berberine, palmatine, jatrorrhizine and coptisine in Wanshi Niuhuang Qingxin Wan by HPLC. The samples were analyzed on analytical silica column using anhydrous alcohol-3% triethylamine (92 : 8) as the mobil phase. Detection wavelength was 345 nm. The results indicate that this method is satisfactory for the separation of each constituent, the relative coefficient of calibration curves for four alkaloids is 0.9999, 0.9998, 0.9996 and 0.9994 respectively. The average recoveries are 99.6% ± 1.20%, 98.38% ± 1.54%, 95.27% ± 1.83% and 96.32% ± 2.01% respectively. Compared with the method in China Pharmacopia this method was convenient and accurate.

Key words HPLC; Wanshi Niuhuang Qingxin Wan; Berberine-type alkaloid

---

【文摘 024】 GlyA基因的克隆及检验 蔡宇易,吴梧桐,史燕东. *药物生物技术*,1995,2(1):1～4

用聚合酶链式反应技术从大肠杆菌K12菌株中扩增出长1.9 kb的DNA片断,并插入载体质粒 $pT_{7\text{-}7}$ 中。经Agarose电泳和DNA序列分析,确证该片断是GlyA目的基因(编码序列长1251 bp,调控序列长约600 bp)。该实验在国内外均未见报道。

【文摘 025】 大肠杆菌L-天门冬酰胺酶的提取和纯化 刘景晶,金健勤,戴海滨,吴梧桐. *药物生物技术*,1995,2(1):16～19

大肠杆菌能产生两种L-天门冬酰胺酶,其中L-天门冬酰胺酶Ⅱ具有抗癌活性,以往对该酶的提取纯化常采用丙酮破碎细胞、有机溶剂反复分级沉淀的方法。本文报道一种新的提取纯化工艺。用蔗糖溶液提取菌体细胞周质中的天门冬酰胺酶,所获得的粗酶液经硫酸分级沉淀、DEAE-纤维素柱层和羧甲基纤维素柱层析纯化,获得了比活为220 IU/mg、SDS-PAGE显示一条带的L-天门冬酰胺酶。

【文摘 026】 应用固定化芽孢杆菌CPU-931105再生腺苷三磷酸 张宏兴,王 旻,王丁刚,吴梧桐,彭海燕. *药物生物技术*,1995,2(1):20～23

筛选了含乙酰激酶较高活力的菌株,芽孢杆菌CPU-931105,并将其固定化,用于从ADP再生ATP。采用明胶-戊二醛共价交联法,使菌体中降解ATP的酶受到抑制,而保持乙酰激酶的活力,使产物ATP得以积累。在柱式反应器中,ADP浓度为1 mg/ml时,空间流速SV为0.5 h^{-1},连续操作7天,再生ATP的转化率可维持在80%以上。