

化学化工

替尼泊昔注射液含量及有关物质的HPLC-ECD分离检测

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摘要 建立以高效液相色谱电化学检测对替尼泊昔及其有关物质进行分离分析的方法. 研究了电化学安培检测中电位与检测量的关系, 比较了电化学安培检测(ECD)和紫外检测两种不同的检测方法. 以乙腈-水(38:62)为流动相, 流速为1.0mL/min, 以PhenomenexR LUNA Phenyl-Hexyl柱, 玻碳圆盘电极为工作电极, 银-氯化银电极为参比电极, 在+0.7V电位处, 实现了替尼泊昔及其有关物质与注射液中的赋形剂的分离分析. 电化学安培检测与紫外检测相比, 具有较高的灵敏度和选择性, 能有效地应用于替尼泊昔注射液中有有关物质的检测和含量的测定.

关键词 [高效液相色谱](#); [电化学安培检测](#); [替尼泊昔](#); [有关物质](#)

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Separation and determination of teniposide and related substances in its injection by HPLC-ECD(Chinese)

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Abstract

To establish an HPLC-electrochemical detection method to separate and determine teniposide and its related substances on a PhenomenexR LUNA Ph-Hex column, the condition of electrochemical detection was studied and the difference between electrochemical detection and UV detection was compared. Teniposide, lignan P, alpha-thenylidene lignan P(ATLP), picrothenylidene lignan P (PTLP) and the excipients of the injection were well separated using an acetonitrile-water (38:62) as mobile phase when the flow rate was 1.0mL/min, and the detection sensitivity was the highest when the working potential was set at +0.7V using the glassy carbon disc electrode as the working electrode. Compared with the UV detection method, the sensitivity and selectivity of electrochemical detection are higher. It can be employed in the detection of impurities in Teniposide injection efficiently without any disturbance and the assay of teniposide.

Key words [HPLC](#) [electrochemical detection](#) [teniposide](#) [related substances](#)

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