

技术与应用

高效阴离子色谱法测定保健食品中的盐酸氨基葡萄糖

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摘要 建立了保健食品中盐酸氨基葡萄糖的高效阴离子色谱测定方法。在AminoPac PA10离子色谱分离柱(2 mm×250 mm)上,以250 mmol/L NaOH溶液作为流动相,利用Au工作电极、pH参比电极的脉冲安培检测器测定了盐酸氨基葡萄糖。方法的线性范围为0.05~10.0 mg/L,检出限为0.012 mg/L,标准品和样品测定的相对标准偏差分别为0.69%和1.38%。用该法测定了保健食品中盐酸氨基葡萄糖,取得了较为满意的结果,加标回收率为96.6%~105.2%,与国家标准方法的测定结果对照,相对偏差为-1.4%~1.0%,表明所建立的方法具有高的灵敏度和精密度,适合于保健食品中盐酸氨基葡萄糖的分析。

关键词 [高效阴离子色谱](#) [脉冲安培检测器](#) [盐酸氨基葡萄糖](#) [保健食品](#)

Determination of glucosamine hydrochloride in health foods using high performance anion exchange chromatography

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Abstract

The method for the analysis of glucosamine hydrochloride in health foods using high performance anion exchange chromatography was established. The determination of glucosamine hydrochloride was performed on an AminoPac PA10 column (2 mm×250 mm) with a pulse amperometric detector with an Au working electrode and an Ag/AgCl reference electrode. The linear range was 0.05-10.0 mg/L, and the detection limit was 0.012 mg/L. The relative standard deviations for the determination of the standard and a sample were 0.69% and 1.38%, respectively. The satisfactory results were obtained for the analysis of health food samples with the proposed method, and the spiked recovery was 96.6%-105.2%. In comparison with the national standard method, the relative deviations of the determination results were -1.4%-1.0%. The method is sensitive and precise. One analysis can be completed within 5 min. This method was available for the determination of glucosamine hydrochloride in health foods.

Key words [high performance anion exchange chromatography](#) [pulse amperometric detector](#) [glucosamine hydrochloride](#) [health food](#)

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