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稳定同位素稀释一质谱技术分析KIC的负化学电离法

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摘要 α－酮异己酸（ＫＩＣ）是亮氨酸在体内经转氨后的产物，本文以Ｄ３－ＫＩＣ为同位素稀释内标准物，经α－Ｂｒ－五氟苯酯化后，用ＧＣ／ＭＳ负化学电离法测定血浆ＫＩＣ的浓度。分析精度：批内ＣＶ为０．７９％，批间ＣＶ为０．７８％，对１０例正常人血浆分析结果，平均含量为４４．０７±２．８７μｍｏｌ／Ｌ。

关键词 ＧＣ／ＭＳ 负化学电离法 同位素稀释法 α—酮异己酸（ＫＩＣ）

分类号

Abstract Measurement of Plasma KIC by Stable Isotope Dilution-Negative Chemical Ionization Gas Chromatography/Mass Spectrometry$$$$Dai Tengchang;Shi Ju;Xia Zongqin(Shanghai Second Medical University,Shanghai 200025,China)Abstract:α-ketoisocaproate(KIC)is the metabolic product of leucine.Using D3-KIC as the internal standard of isotope dilution,the KIC in human plasma were converted to its pentafluorobenzyl ester and analysed with methane negative chemical ionization gas chromatography/mass spectrometry.The intra-batch and inter-batch coefficients of variation were 0.79% and 0.78% respectively.The mean concentration of plasma KIC of 10 normal adult volunteers was 44.07±2.87 μmol/L.Keywords:gas chromatography/mass spectrometry,negative chemical ionization,stable isotope dilution analysis,α-ketoisocaproate

Key words

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