

# 中国人血红蛋白New York的研究

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**摘要** 本文报告在中国大陆发现的10个快速异常血红蛋白系的研究结果, 这种异常血红蛋白的电泳迁移率属于K型, 血红蛋白稳定性轻度降低, 血红蛋白变型的结构分析, 包括珠蛋白肽链的分离, 氨基乙基化β链的酶解和指纹分析, 以及异常肽段的氨基酸组成和顺序测定, 证实其β链113位(G15)的缬氨酸被谷氨酸替代, 称为血红蛋白New York(αβ(G15)Val↔Glu). 在10个家系的调查中共发现35例Hb New York患者, 他们都没有临床症状。其中2例是Hb New York和β<sup>0</sup>地中海贫血基因的双重杂合子, 血红蛋白New York的含量达90%以上; 其余患者都是Hn New York杂合子, 血红蛋白New York含量大约50%。从血红蛋白New York的地理分布可以看出, 这种异常血红蛋白在我国南方发生频率较高, 接近0.4%。

关键词

分类号

## A Study on Hemoglobin New York in China

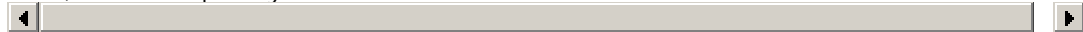
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### Abstract

This paper presents the results of a study of 10 families with a fast abnormal hemoglobin found in China Mainland. The abnormal hemoglobin, with slightly reduced stability, was identified as the K type hemoglobin according to its electrophoretic mobility. From the structure analyses of the variant, including globin chain separation, tryptic digestion of the aminoethylated β chain, fingerprinting of the tryptic digest, as well as amino acid composition and sequence analysis of the abnormal peptide, it was indicated that its β 113 Val<sup>113</sup> valine was replaced by glutamic acid, and hence known as hemoglobin New York .

In the 10 families studied, 35 individuals were found to be the Hb New York subjects, all healthy in appearance. Among them two subjects, with hemoglobin New York over 90%, were the double heterozygote for hemoglobin New York and β<sup>0</sup> thalassemia genes; the remainders were the heterozygote for the Hb New York gene only and had the abnormal hemoglobin about 50%. From the geographical distribution of Hb New York, it is clear that Hb New York occurs mostly in the southern parts of China, with a frequency of about 0.4%.



### Key words

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