

病例报告

Bx亚型1例的分子生物学鉴定

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摘要:

采用标准分析方法分析1例Bx亚型的血清学特征,再采用PCR-SSP技术做ABO初步基因分型,并对ABO基因第6外显子和第7外显子进行测序。该标本血清学检测结果:与抗B反应为无或1+,与抗AB反应为1+或2+,自身不凝集。PCR-SSP结果为Bx02/O2。ABO基因测序结果显示:B基因外显子6出现261G缺失,297为GG纯合子,表明该标本为B型与O2杂合;外显子7直接测序出现297A>G,526C>G,657C>T,703G>A,796C>A,803G>C,905A>G,930A>G,表明该标本为Bx02与O2的杂合;外显子7克隆测序出现803G>C,905A>G,表明该标本为Bx/O2。该标本血清学表型为B型,测序结果与Genbank网站比对鉴定为ABO*Bx.02.1.1与ABO*O21.01.1.1的杂合。

关键词: ABO血型 Bx亚型 等位基因 Bx02

Molecular genetic research of a case of Bx subgroup

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Abstract:

Serologic characters of Bx subtype were analyzed with standard methods, PCR-SSP method was used for its genotype, and DNA sequences of 6 and 7 exons of ABO genes were analyzed by DNA sequencing. Serologically, the anti-B test was no or 1+, with anti-AB (1+ or 2+). The patient's auto antibodies were negative. PCR-SSP showed the patient was Bx02/O2. ABO genetic locus sequencing was 261delG in exon 6 and 297 was GG homozygous. The sample was a combination of blood group B and O2 because 297A>G, 526C>G, 657C>T, 703G>A, 796C>A, 803G>C, 905A>G, 930A>G shown by direct DNA sequencing and 803G>C, 905A>G shown by cloning DNA sequencing. The serological phenotype of the specimen was B and the genetic sequence was a combination of ABO*Bx.02.1.1 and ABO*O21.01.1.1.

Keywords: ABO subtype Bx subtype allele Bx02

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参考文献:

- [1] Schenk-Brunner H. ABO(H) system [M] //Schenk-Brunner H. Human blood groups chemical and biochemical basis of antigen specificity. 2nd ed, New York: Springer, 2000: 118-161.
- [2] 伍焕秀, 黎海澜, 李秀萍, 等. Bx亚型1例报告 [J]. 医学文选, 2006, 25(4): 931-932. WU Huanxiu, LI Hailan, LI Xiuping, et al. Report of a Bx subgroup [J]. Anthology of Medicine, 2006, 25(4): 931-932.
- [3] 阎东河, 李廷孝, 侯军, 等. 白血病致血型A抗原减弱2例 [J]. 中国输血杂志, 2002, 15(4): 2761. YAN Donghe, LI Tingxiao, HOU Jun, et al. Leukemia to type A antigen weak in 2 cases [J]. Chinese of Jourl of Blood Transfusion, 2002, 15(4): 2761.

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[4] 应燕玲,陶苏丹,和艳敏,等.一例ABO血型系统B抗原减弱表达的分子机制 [J] .中华医学遗传学杂志, 2011,28(4): 397-400. YING Yanling, TAO Shudan, HE Yanmin, et al. Molecular mechanism of an individual with weaken B phenotype in ABO blood group [J] .Chinese Journal of Medical Genetics, 2011,28(4): 397-400.

[5] 焦立新,于晓丽,门小菲,等.1例Bx亚型的分子机制研究 [J] .临床输血与检验,2010,12(1): 19-21. JIAO Lixin, YU Xiaoli, MEN Xiaofei, et al. Molecular genetic analysis for a Bx subgroup [J] . Journal of Clinical Transfusion Laboratory Mediciry, 2010,12(1): 19-21.

[6] 余忠清,胡丽华.ABO疑难血型鉴定与临床输血的研究 [J] .临床血液学杂志,2010, 23(2): 98-101. YU Zhongqing, HU Lihua. Identification and clinical study on suspicious ABO blood group [J] . Journal of Clinical Hematology, 2010, 23 (2): 98-101.

[7] 唐任光,黄庆,李荣颜,等. Bx亚型2例报道 [J] .临床输血与检验,2009,11(3): 273-274. TANG Renguang, HUANG Qing, LI Rongyan, et al. Report of two Bx subgroups [J] . Journal of Clinical Transfusion and Laboratory Medicine, 2009,11(3): 273-274.

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1. 龙友国¹, 黄文强¹, 余跃生², 龙思方¹.藏族人群ABO血型分布及其遗传关系[J]. 中南大学学报(医学版), 2009,34(10): 965-969
2. 钱小兵^{1,2}, 谢毓滨³, 卢光琇^{2,4}.湖南苗族人群HLA-A, -B和-DRB1基因多态性的研究[J]. 中南大学学报(医学版), 2010,35(4): 277-285
3. 李清解; 宋惠萍.醛糖还原酶基因(AC)n二核苷酸串联重复序列不同等位基因的筛选[J]. 中南大学学报(医学版), 2000,25(1): 9-11
4. 黄建军; 宋惠萍;.胰岛素受体底物-1基因5' -调控序列CAG富含区碱基缺失/插入的研究[J]. 中南大学学报(医学版), 2001,26(2): 103-