

新疆蒙古族对糖精和乙酰水杨酸尝味能力的分析 Analysis of Saccharin and Aspirin Tasting Ability among Mongolians of Xinjiang

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摘要 对710名(男328人,女382人)新疆蒙古族进行了糖精和乙酰水杨酸尝味能力的检测分析。结果表明,蒙古人群中糖精味盲率为4.648%,没有尝味能力的隐性基因频率为0.2156,具有尝味能力的显性基因频率为0.7844,平均尝味阈值为 8.009 ± 1.34 (0.108mol/L)。乙酰水杨酸的尝味阈值分布出现了非常明显的双峰一谷分布,表明该性状是单基因决定的性状,谷底7号液(3.00×10^{-4} mol/L)是味盲的界限,味盲的峰值在1号液(1.7×10^{-2} mol/L),尝味者的峰值在11号液(1.25×10^{-5} mol/L),味盲率为90.282%。经 χ^2 检验,男、女性的味盲率无显著差异($P > 0.90$),表明决定乙酰水杨酸尝味能力的基因位于常染色体,对该基因的显隐性等特点尚需通过家系分析进行确定。

Abstract:The saccharin and aspirin tasting abilities have been detected and analyzed in 710 individuals (328men,382women)of Xinjiang Mongol.It is showed that the saccharin taste-blindness ratio among Mongolians was 4.648%,frequency of the recessive gene determining taste-blindness and the dominant gene determining taste ability was 0.2156,and 0.7844 respectively,and its mean testable threshold was 8.00 ± 1.34 (0.108mol/L).Distribution of aspirin tasting threshold appeared a distinct curve with double peaks and single bottom,and demonstrated the aspirin tasting ability was a monogenic character.Solution NO.7 (3.00×10^{-4} mol/L) at the bottom in the curve was the boundary of taste-blindness.The peak of taste-blindness was at the solution NO.1 (1.7×10^{-2} mol/L),and the peak of tasters was at the solution NO.11 (1.25×10^{-5} mol/L),The ratio of aspirin taste-blindness was 90.28%.The χ^2 test has been used to evaluate the statistical difference in aspirin taste-blindness ratio between male and female,the result showed that there was no significant difference ($P > 0.90$),and the gene determining for aspirin tasting ability located on autosomes.

关键词 新疆蒙古人 糖精 乙酰水杨酸 味盲率 基因频率 **Key words** Mongolians of Xinjiang saccharin aspirin taste blindness gene frequency

分类号

扩展功能

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