

研究报告

青藏高原栽培青稞淀粉粒蛋白多态性及其与淀粉含量的关系

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摘要

淀粉粒蛋白(Starch granule proteins, SGPs)是一类与淀粉粒结合的微量蛋白, 其变异可能与淀粉特性相关。实验率先研究了我国青藏高原栽培青稞的SGP组成, 初步探索了所分离的SGP蛋白与淀粉合成的关系。青藏高原青稞的SGP组成存在多态性, 66份青稞材料中分离了10种主要的SGPs, 16种组合带谱。西藏青稞和四川青稞的SGP组成有很大差异, SGP组成具有地域差异性。不同组合带谱材料间淀粉含量差异显著性检验显示, 实验所分离的淀粉粒蛋白可能与淀粉的合成相关。

关键词 [栽培青稞](#) [淀粉粒蛋白](#) [多态性](#) [淀粉含量](#) [青藏高原](#)

分类号

SGP polymorphism in cultivated naked barley from Qinghai-Tibet plateau in China and the relationship between SGPs and starch content

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Abstract

<P>Starch granule proteins (SGPs) are minor components bound with starch granule, which mutation may be related to starch properties. This study investigated the variation of SGPs in cultivated naked barley from Qinghai-Tibet Plateau in China for the first time, and the relationship between SGPs and starch content was preliminarily done. Ten major SGPs and 16 types of patterns were present in 66 cultivated naked varieties, indicating SGPs in cultivated naked barley from Qinghai-Tibet Plateau in China are polymorphic. SGPs in Tibet and Sichuan naked barley were greatly different and SGPs were specific to origin of site. Significance test analysis demonstrates SGPs described in this study except for SGP1 may be related with the variation of starch content in different naked barley.</P>

Key words [cultivated naked barley](#) [starch granule protein \(SGP\)](#) [polymorphism](#) [starch content](#) [Qinghai-Tibet Plateau](#)

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