

# 大白菜花药培养中花粉早期DNA的合成(1)

杨澄 刘春清

(北京大学生物系)

收稿日期 修回日期 网络版发布日期 接受日期

**摘要** 应用显微放射自显影技术, 在大白菜 (*Brassica perkinensis* Rupr.) 花药离体培养初期观察了<sup>3</sup>H-胸腺嘧啶核苷 (<sup>3</sup>H-TdR) 掺入花粉核及其DNA复制类型。花粉去分化进入第一次孢子体分裂主要发生在DNA合成的单核和非均等分裂的营养后24小时<sup>3</sup>H-TdR掺入达到高峰, 花粉有丝分裂产生两个均等子核的最大数量是在培养后48小时。讲了花药体细胞组织——绒毡层和药内壁对化粉核DNA合成的影响。

**关键词**

分类号

## DNA Synthesis in Pollen during the Initial Period of Anther Culture in *Brassic pekinensis*

Yang Cheng Liu Chunqing

(Biology Department , Beijing University)

### Abstract

DNA synthesis in pollen during the initial period of anther culture was studied by <sup>3</sup>H-thymidine labeling and micro-autoradiography. Cytological examination revealed the existence of four major types of pollen grains with respect to their ability to the synthesis of DNA. DNA synthesis of pollen grains and the first sporophytic division were initiated in the uninucleate grain or in the vegetive nucleus of the binucleate pollen grain.

The time course of DNA synthesis and unclear division by pollen at different times of culture was determined in liquid medium . It was found that <sup>3</sup>H-thymidine incorporation reached its peak after 24 h of culture, while most of first sporophytic division took place after 48 h of culture.

Effect of the somatic tissue (tapetum and anther wall) on DNA synthesis by pollen was also discussed.

### Key words

DOI:

通讯作者

### 扩展功能

#### 本文信息

▶ [Supporting info](#)

▶ [PDF\(2413KB\)](#)

▶ [\[HTML全文\]\(0KB\)](#)

▶ [参考文献](#)

#### 服务与反馈

▶ [把本文推荐给朋友](#)

▶ [加入我的书架](#)

▶ [加入引用管理器](#)

▶ [复制索引](#)

▶ [Email Alert](#)

▶ [文章反馈](#)

▶ [浏览反馈信息](#)

#### 相关信息

▶ [本刊中 无 相关文章](#)

▶ 本文作者相关文章

· [杨澄 刘春清](#)