

# 普通小麦T型细胞质雄性不育系及其保持系线粒体多肽的电泳比较研究

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**摘要** 应用单向SDS-PAGE和双向IEF-SDS电泳技术对两个品种的普通小麦(T.aestivum L.)T型细胞质雄性不育系及其保持系的线粒体多肽进行了比较研究, 结论如下: 1. 黄化苗期不育系和保持系线粒体多肽在单向SDS-PAGE和双向IEF-SDS电泳行为上无明显差别; 2. 在孕穗期幼穗线粒体多肽的单向SDS-PAGE图谱上, 两个不育系都缺少28Kd多肽带纹, 因而不育系和保持系间表现出明显的差异。双向IEF-SDS凝胶电泳证实28Kd带纹实际上是分子量相同而等电点分别为5.58和5.65的两个多肽; 3. 线粒体基因的表达是具有时空性质的; 4. 线粒体与T型细胞质雄性不育可能存在着某种特定的关系。本文还就T型细胞质雄性不育的分子机制进行了探索性讨论。

**关键词** [普通小麦](#), [T型细胞质雄性不育](#), [线粒体多肽](#), [电泳](#)

分类号

## Electrophoretic Comparative Study on Polypeptides of Mitochondria from Cytoplasmic Male Sterile Lines and Their Maintainers in Wheat

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### Abstract

Mitochondrial polypeptides from two pair of cytoplasmic male sterile lines and their maintainers in wheat have been fractionated by 2-D IEF-SDS as well as SDS-PAGE. The results are as follows: 1. No difference has been found on the chromatograms of SDS-PAGE and 2-D IEF-SDS between mitochondrial polypeptides from etiolated seedlings of CMS lines and their maintainers. 2. During the development of young ears, one 28Kd polypeptide which virtually appears in two spots on 2-D IEF-SDS is absent from the SDS-PAGE chromatograms of CMS mitochondria, while polypeptide-chromatogram of maintainers are normal. 3. Expression of mtDNA is in order of time and space. 4. Mitochondria may involve in CMS. Also, discussion is made on the mechanism of CMS and a tentative model is put forward.

**Key words** [Wheat \(T.aestivum L.\)](#) [CMS Type T](#) [Mitochondrial polypeptides](#) [Electrophoresis](#)

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