

生命科学

## 盘基网柄菌细胞发育中gp150分子与凋亡蛋白作用分析

张树任, 施佳乐, 刘伟, 陈能星, 侯连生

华东师范大学 生命科学学院, 上海 200062

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**摘要** 用Percoll密度梯度技术分离和收集盘基网柄菌前柄和前孢子细胞, Western blot分析gp150分子和胱天蛋白酶在前孢子细胞和前柄细胞两种类型细胞中的表达情况. 结果显示: 只能在前柄细胞中检测到gp150蛋白条带, 并随细胞发育蛋白的量逐渐增加, 提示gp150蛋白的表达量与发育时间, 前柄细胞分化有密切关系; 在前柄细胞中能检测到31.5 kD和37.5 kD分子量大小的凋亡蛋白, 且蛋白量也是随发育时间有所增加, 在两种类型细胞中都可检测38.2 kD的凋亡蛋白. 这些数据表明盘基网柄菌细胞凋亡过程中有类似Caspase-3的蛋白表达, 它们的存在与细胞凋亡存在密切关系; gp150分子的表达与胱天蛋白酶的激活可能存在一定关系.

**关键词** [盘基网柄菌](#) [凋亡](#) [gp150](#) [胱天蛋白酶](#)

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## Functional analysis of gp150 and apoptosis protein in the development of Dictyostelium discoideum(Chinese)

ZHANG Shu-ren, SHI Jia-le, LIU Wei, CHEN Neng-xing, HOU Lian-sheng

School of Life Science, East China Normal University, Shanghai 200062, China

### Abstract

Prestalk and prespore cells of Dictyostelium discoideum were separated and obtained by centrifugation of Percoll density gradients, and the expressions of gp150 and Caspase-3 in these two types of cells were analyzed by western blot. The results showed that gp150 could only be detected in prestalk cells, and the quantity of this protein increased with the development of cells. This suggested the quantity of gp150 expression had a close relationship with both of developing time and the differentiation of prestalk cells. It also showed that apoptosis proteins with the molecule weight of 31.5 kD and 37.5 kD were detected in prestalk cells and their quantities also increased with developing time. Besides, proteins of 38.2 kD could be detected in both of two types of cells. These results indicate that proteins like Caspase-3 are expressed in the progress of prestalk cell differentiation, and they are deeply correlative to the progress of apoptosis There could be a relationship between the expression of gp150 and Caspase activation.

**Key words** [Dictyostelium discoideum](#) [apoptosis](#) [gp150](#) [Caspase](#)

DOI:

通讯作者 侯连生 [lshou@bio.ecnu.edu.cn](mailto:lshou@bio.ecnu.edu.cn).

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