

实验研究

抗多房棘球绦虫原头节单克隆抗体的制备

王昕^{1,2}, 刘巧凤¹, 路睿¹, 徐佳楠¹, 李调英³, 孙磊¹, 张亚楼², 孙力杨², 张辉², 陈建平¹ *

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摘要

目的 制备抗泡球蚴组织单克隆抗体, 并鉴定其特异性。方法 运用泡球蚴组织粗抗原免疫小鼠制备免疫脾细胞, 运用淋巴细胞杂交瘤技术将其与小鼠骨髓细胞SP2/O融合。采用ELISA和免疫组化方法筛选抗泡球蚴原头节单克隆抗体的杂交瘤细胞株。检测所获细胞株的染色体数目, 采用ELISA和免疫组化法鉴定所获抗体的特异性。结果 获得了一株能稳定分泌的抗泡球蚴原头节单克隆抗体的杂交瘤细胞株6G2A7F7。染色体数目为98条, 为明显的融合细胞核型。所分泌的抗体McAb P325能与泡球蚴中的生发层和原头节特异结合, 特别对原头节上的小钩和吸盘表现出很强的结合反应。但与棘球蚴(人源)和水泡带绦虫幼虫(细颈囊尾蚴)组织无特异性结合反应。结论 制备的杂交瘤细胞能稳定分泌McAb P325, 为泡球蚴的细胞分类、免疫组化和抗原研究提供工具和基础。

关键词 [多房棘球绦虫](#) [泡球蚴包囊](#) [原头节](#) [单克隆抗体](#) [免疫组化](#)

分类号

Production of A Monoclonal Antibody Specific to Protoscolex of *Echinococcus multilocularis*

WANG Xin^{1,2}, LIU Qiao-feng¹, LU Rui¹, XU Jia-nan¹, Tiao-ying³, SUN Lei¹, ZHANG Ya-lou², SUN Li-yang², ZHANG Hui², CHEN Jian-ping¹ *

Abstract

Objective To prepare monoclonal antibody (McAb) specific to protoscolex of *Echinococcus multilocularis*. Methods BALB/c mice were immunized with crude antigen derived from *E. multilocularis* metacestodes. Spleen cells from immunized BALB/c mice were fused with SP2/O myeloma cells by using hybridoma technique. ELISA and immunohistochemical staining were used to select hybridomas that secreted McAb P325 which especially against protoscolex. The number of metaphase chromosomes of hybridoma cells was counted. Characteristics of McAb P325 were identified by ELISA and immunohistochemical staining. Results One hybridoma cell clone secreting McAb against protoscolex was obtained. The number of metaphase chromosomes found in hybridoma cells was 98, which showed the characteristics of their parents.

Immunohistochemical analysis showed that McAb P325 demonstrated binding activity to the germinal layer and protoscolex of *E. multilocularis*, especially to the hooklets and suckers, while did not bind with *E. granulosus* metacestodes and *Cysticercus tenuicollis*.

Conclusion The McAb is a valuable tool for immunohistochemical analysis, cell classification of *E. multilocularis* protoscolex, and study of specific antigen.

Key words

[Echinococcus multilocularis](#) [Alveolar hydatid cyst](#) [Protoscolex](#) [Monoclonal antibody](#) [Immunohistochemistry](#)

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通讯作者

作者个人主页 王昕^{1,2}; 刘巧凤¹; 路睿¹; 徐佳楠¹; 李调英³; 孙磊¹; 张亚楼²; 孙力杨²; 张辉²; 陈建平¹ *

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