

技术与方法

基因免疫制备人Mig-2蛋白特异性单克隆抗体

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摘要 背景与目的: Mig-2蛋白是肿瘤形成过程中的重要分子, 本研究探讨制备人Mig-2蛋白的单克隆抗体以便为肿瘤诊断和治疗提供新途径。材料与方法: 用重组Mig-2质粒(以P3XFLAG-CMV-10表达质粒为载体)免疫6~8周龄雌性BALB/c小鼠, 通过细胞融合与克隆, 筛选Mig-2特异性单抗。结果: 得到稳定分泌Mig-2抗体的单克隆杂交瘤细胞3株, 分别命名为3C4、4H2和1F8; 间接ELISA方法测得3株Mig-2单抗腹水效价分别为1:2.4×10⁴、1:3.6×10⁴和1:4.8×10⁴, 细胞分泌上清效价分别为1:256、1:32和1:512; 单抗亚类鉴定表明3株单抗均为IgM类。结论: 制备的Mig-2单抗特异性和稳定性较好, 可以用于肿瘤治疗相关研究。

关键词 [基因免疫](#); [单克隆抗体](#); [Mig-2](#); [肿瘤治疗](#)

Preparation of the Monoclonal Antibody Specific to Mig-2 Protein by Genetic Immunization

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Abstract BACKGROUND AND AIM: Mig-2 protein is an important molecular in the process of tumor formation, and is a target for tumor therapy. To search new effective ways to diagnose and treat malignant tumors, we prepared the McAbs of Mig-2 protein. MATERIALS AND METHODS: BALB/c mice were immunized with recombinant plasmid of Mig-2(the vector is P3XFLAG-CMV-10).By cell fusion and cell cloning, the McAbs of Mig-2 protein were prepared. RESULTS: Three strains of hybridoma cells 3C4,4H2 and 1F8 all secreting a subclass of IgM, anti-mig-2 antibody, were obtained after fusion followed by three or four screenings. The ascitic fluid McAbs were prepared by injecting the hybridoma cells into mice abdomen. The indirect ELISA results showed that ascitic McAbs revealed high affinity with the Mig-2 protein at the titer of 1:2.4×10⁴-1:4.8×10⁴, and the titer of cell supernatant was 1:32-1:512. CONCLUSION: Prepared McAbs of Mig-2 were specific and stable agent for tumor therapy research.

Keywords [genetic immunization](#) [monoclonal antibody](#) [Mig-2](#) [tumor therapy](#)

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