

عنوان مقاله:

Transmission of Neomycin Resistance Gene into mouse zygote and its expression analysis

محل انتشار:

چهارمین همایش ملی بیوتکنولوژی ایران (سال: 1384)

تعداد صفحات اصل مقاله: 4

نویسندگان:

M Nikpay - Dept. of Medical Biotechnology, Tarbiat Modares University

M Forouzandeh - Dept. of Medical Biotechnology, Tarbiat Modares University

M Daliri - National Center for Genetic Engineering and Biotechnology

M Esmaelizad - Razi Vaccine and Serum Research Institute

خلاصه مقاله:

The microinjection of foreign gene into mouse zygote is the most usual way for production of transgenic animals. In this study, we transferred neomycin resistance gene into mouse zygote by microinjection technique, embryos at eight cell stage were analyzed for genomic integration and expression. BALB/c X NMRI F1 female mice were superovulated with Pregnant Mares Serum Gonadotrophin (PMSG) and Human Chorionic Gonadotrophin (hCG). Fertilized zygotes were collected and neomycin resistance genome microinjected into male pronucleus. Embryos were cultured up to 8 cells stage in DMEM/F12 medium. The genomic integration and expression analyzed by Polymerase Chain Reaction and Real-Time Polymerase Chain Reaction. The PCR results for genomic integration were positive. The gene expression studies showed that G.418 has positive effect on induction of neomycin resistance gene. We also studied the optimization of microinjection, measured by sensitivity of Real-Time PCR by SYBER Green Dye 1 for quantitative analysis.

کلمات کلیدی:

Transgenesis, Neomycin, embryo manipulation, mouse zygotes, microinjection

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/45235>

