

小鼠胚胎成纤维细胞 NIH/3T3 说明书

目录号: SCSP-515

细胞名称: NIH/3T3

细胞描述: NIH/3T3 是从小鼠 NIH/Swiss 品系的胚胎中建立的成纤维细胞株。该细胞易于转染,对肉瘤病毒转化灶形成和白血病病毒增殖十分敏感。据报道,鼠痘病毒 (ectromelia virus, ECTV) 检测结果为阴性。

物种: 小鼠, NIH/Swiss 品系

组织: 胚胎

细胞来源: 资源库保藏

生物安全等级: BSL-1

完全培养液配方: 见下方备注

批次/冻存日期: 详见 冻存管/培养瓶 标识

参考传代周期: 2-3 天

参考传代比例: 1:4

(备注: 切勿使细胞生长过密,每周至少传代 2 次,保证细胞密度不超过 80%。)

参考换液频率: 2-3 天

冻存液配方: 完全培养液 95%, DMSO 5%

细胞形态: 成纤维细胞, 贴壁生长

支原体检测结果: 阴性

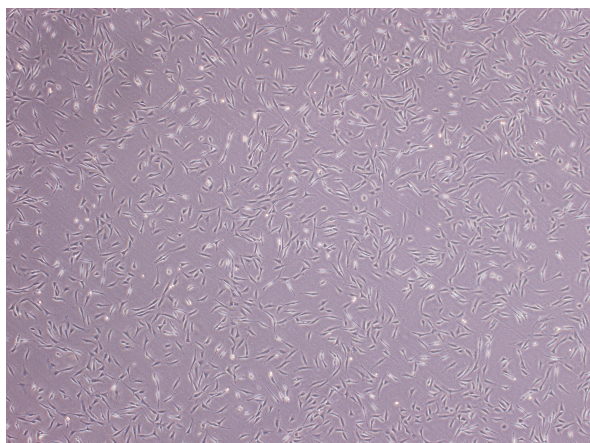
STR 鉴定结果:

①该株细胞 DNA 进行小鼠细胞 STR 分型结果显示,扩增后图谱清晰,分型结果良好: 1-1: 10; 1-2: 13, 17; 2-1: 9; 3-2: 14, 15; 4-2: 19.3, 20.3; 5-5: 14, 15; 6-4: 15.3; 6-7: 12; 7-1: 29; 8-1: 15; 11-2: 15, 17; 12-1: 20; 13-1: 16.2; 15-3: 20.3; 17-2: 13, 14; 18-3: 17, 19; 19-2: 11, 12; X-1: 25。

②该细胞与 ExPASy 中 NIH 3T3 细胞的 STR 数据匹配率为 100%。

③该株细胞确为小鼠细胞, 没有人源细胞污染。

细胞照片:



参考文献:

Jainchill JL, et al. Murine sarcoma and leukemia viruses: assay using clonal lines of contact-inhibited mouse cells. *J. Virol.* 4: 549-553, 1969. PubMed: 4311790

Andersson P, et al. A defined subgenomic fragment of in vitro synthesized Moloney sarcoma virus DNA can induce cell transformation upon transfection. *Cell* 16: 63-75, 1979. PubMed: 84715

Copeland NG, Cooper GM. Transfection by exogenous and endogenous murine retrovirus DNAs. *Cell* 16: 347-356, 1979. PubMed: 222457

Loffler S, et al. CD9, a tetraspan transmembrane protein, renders cells susceptible to canine distemper virus. *J. Virol.* 71: 42-49, 1997. PubMed: 8985321

Berson JF, et al. A seven-transmembrane domain receptor involved in fusion and entry of T-cell-tropic human immunodeficiency virus type 1 strains. *J. Virol.* 70: 6288-6295, 1996. PubMed: 8709256

Jones PL, et al. Tumor necrosis factor alpha and interleukin-1beta regulate the murine manganese superoxide dismutase gene through a complex intronic enhancer involving C/EBP-beta and NF-kappaB. *Mol. Cell. Biol.* 17: 6970-6981, 1997. PubMed: 9372929

Gonzalez Armas JC, et al. DNA immunization confers protection against murine cytomegalovirus infection. *J. Virol.* 70: 7921-7928, 1996. PubMed: 8892915

Siess DC, et al. Exceptional fusogenicity of chinese hamster ovary cells with murine retrovirus suggests roles for cellular factor(s) and receptor clusters in the membrane fusion process. *J. Virol.* 70: 3432-439, 1996. PubMed: 8648675

Jang SI, et al. Activator protein 1 activity is involved in the regulation of the cell type-specific expression from the proximal promoter of the human profilaggrin gene. *J. Biol. Chem.* 271: 24105-24114, 1996. PubMed: 8798649

Medin JA, et al. Correction in trans for Fabry disease: expression, secretion, and uptake of alpha-galactosidase A in patient-derived cells driven by a high-titer recombinant retroviral vector. *Proc. Natl. Acad. Sci. USA* 93: 7917-7922, 1996. PubMed: 8755577

Lee JH, et al. The proximal promoter of the human transglutaminase 3 gene. *J. Biol. Chem.* 271: 4561-4568, 1996. PubMed: 8626812

Chang K, Pastan I. Molecular cloning of mesothelin, a differentiation antigen present on

mesothelium, mesotheliomas, and ovarian cancers. Proc. Natl. Acad. Sci. USA 93: 136-140, 1996. PubMed: 8552591

Cranmer LD, et al. Identification, analysis, and evolutionary relationships of the putative murine cytomegalovirus homologs of the human cytomegalovirus UL82 (pp71) and UL83 (pp65) matrix phosphoproteins. J. Virol. 70: 7929-7939, 1996. PubMed: 8892916

Shisler J, et al. Induction of susceptibility to tumor necrosis factor by E1A is dependent on binding to either p300 or p105-Rb and induction of DNA synthesis. J. Virol. 70: 68-77, 1996. PubMed: 8523594

Cavanaugh VJ, et al. Murine cytomegalovirus with a deletion of genes spanning HindIII-J and -I displays altered cell and tissue tropism. J. Virol. 70: 1365-1374, 1996. PubMed: 8627652

Westerman KA, Le Boulch P. Reversible immortalization of mammalian cells mediated by retroviral transfer and site-specific recombination. Proc. Natl. Acad. Sci. USA 93: 8971-8976, 1996. PubMed: 8799138

The NIH/3T3, a continuous cell line of highly contact-inhibited cells was established from NIH Swiss mouse embryo cultures in the same manner as the original random bred 3T3 (ATCC CCL-92) and the inbred BALB/c 3T3 (ATCC CCL-163). The established NIH/3T3 line was subjected to more than 5 serial cycles of subcloning in order to develop a subclone with morphologic characteristics best suited for transformation assays.

备注:

1. 小鼠胚胎成纤维细胞 NIH/3T3 完全培养液 配方 (100 ml) :

DMEM (Invitrogen, 11960044)	87 ml
bovine calf serum, 新生牛血清 (四季青,22012-8612)灭活后使用	10 ml
Glutamax (Invitrogen, 35050061)	1 ml
Non-essential Amino Acids, 100× (Invitrogen, 11140050)	1 ml
Sodium Pyruvate 100 mM Solution (Invitrogen, 11360070)	1 ml

2. NIH/3T3 细胞对于血清较为敏感, **不能**使用胎牛血清 (FBS) 培养该细胞。

3. 我库冻存时, 每支冻存管约含 1×10^6 细胞量, 体积为 500 μ l, 预期存活率 70%, 建议复苏至 1 个 T25 培养瓶中。

详情访问中科院干细胞库/干细胞技术平台 <http://www.cellbank.com.cn/index.asp>;

电话: 021-54921358

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中国科学院典型培养物保藏委员会细胞库/干细胞库

