BCRJ Code:	0434
Cell Line:	EL4
Species:	Mus musculus
Vulgar Name:	Mouse; C57BL/6N
Cell Type:	T Lymphoblast
Morphology:	Lymphoblast
Disease:	Lymphoma
Growth Properties:	Suspension
Derivation:	EL4 was established from a lymphoma induced in a C57BL mouse by 9,10-dimethyl-1,2-benzanthracene.
Applications:	This cell line is a suitable transfection host.
Products:	Antigen expression: H-2b; Thy-1.2
Biosafety:	1
Addtional Info:	The cells are resistant to 0.1 mM cortisol and sensitive to 20 µg/mL PHA. A subline (EL4.IL-2) that produces high levels of interleukin-2 (IL-2, interleukin 2) is available. A subline (EL4.IL-2) that is resistant to 0.1 mM 5-bromo-2'-deoxyuridine (BUdR) is available. A subline (EL4.BU.1.OUAr.1.1) that is resistant to 0.1 mM 5-bromo-2'-deoxyuridine and 1 mM ouabain is available. Tested and found negative for ectromelia virus (mousepox).
Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) modified to contain 2 mM L-glutamine, 4500 mg/L glucose and fetal bovine serum to a final concentration of 10%.

Subculturing:	Cultures can be maintained by addition or replacement of fresh medium. Start cultures at 2 X 105 cells/mL and maintain between 1 X 105 and 1 X 106 cells/mL.
Subculturing Medium Renewal:	Every 2 to 3 days
Subculturing Subcultivation Ratio:	Start cultures at 2 X 105 cells/mL and maintain between 1 X 105 and 1 X 106 cells/mL.
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C
Cryopreservation:	95% FBS + 5% DMSO (Dimethyl sulfoxide)
Thawing Frozen Cells:	SAFETY PRECAUTION: It is strongly recommended to always wear protective gloves, clothing, and a full-face mask when handling frozen vials. Some vials may leak when submerged in liquid nitrogen, allowing nitrogen to slowly enter the vial. Upon thawing, the conversion of liquid nitrogen back to its gas phase may cause the vial to explode or eject its cap with significant force, creating flying debris. 1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes). 2. Remove the vial from the water bath as soon as its contents are thawed and decontaminate it by dipping in or spraying with 70% ethanol. From this point, all operations must be performed under strict aseptic conditions. 3. For cells sensitive to DMSO, it is recommended to remove the cryoprotective agent immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge at approximately 125 × g for 5 to 7 minutes. 4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio). 5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during cell recovery. To minimize this risk, it is recommended to place the culture vessel containing the growth medium in the incubator for at least 15 minutes before adding the vial contents. This allows the medium to stabilize at its normal pH (7.0 to 7.6).

References:	Ralph P. Retention of lymphocyte characteristics by myelomas and theta+- lymphomas: sensitivity to cortisol and phytohemagglutinin. J. Immunol. 110: 1470-1475, 1973. PubMed: 4541304 Old LJ, et al. The G (Gross) leukemia antigen. Cancer Res. 25: 813-819, 1965. PubMed: 4284252 Gorer PA. Studies in antibody response of mice to tumour inoculation. Br. J. Cancer 4: 372-379, 1950. PubMed: 14801344 Herberman RB. Serological analysis of cell surface antigens of tumors induced by murine leukemia virus. J. Natl. Cancer Inst. 48: 265-271, 1972. PubMed: 4119883 Ralph P, Nakoinz I. Inhibitory effects of lectins and lymphocyte mitogens on murine lymphomas and myelomas. J. Natl. Cancer Inst. 51: 883-890, 1973. PubMed: 4542714
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