BCRJ Code:	0427
Cell Line:	BCL2 Jurkat
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Peripheral Blood
Cell Type:	T Lymphocyte
Morphology:	Lymphoid-like
Disease:	Leukemia; Acute T Cell
Growth Properties:	Suspension
Sex:	Male
Age/Ethinicity:	14 Year /
Derivation:	The BCL2 Jurkat cell line was derived by transfecting human Jurkat T cells with the pSFFV-neo mammalian expression vector containing the human BCL-2 ORF insert and a neomycin-resistant gene (Addgene # 3349). Stable neomycin (Neo)-resistant single-cell-originated clones were isolated and expanded by selection in medium containing 1 mg/mL G418 for 14 days.
Applications:	This cell line over-expresses BCL-2, and is useful to study cell apoptosis, BCL-2 function and its pathway. 3D cell culture; Immune system disorder research; Immunology
DNA Profile:	D5S818: 9 D13S317: 8, 12 D7S820: 8, 12 D16S539: 11 vWA: 18, 19 TH01: 6, 9.3 Amelogenin: X Y TPOX: 8, 10 CSF1PO: 11, 12
Products:	Neomycin resistance gene; BCL2 over-expressed

Biosafety:	2
Addtional Info:	The BCL2 Jurkat cell line was derived by transfecting human Jurkat T cells with the pSFFV-neo mammalian expression vector containing the human BCL-2 ORF insert and a neomycin-resistant gene (Addgene # 3349). Stable neomycin (Neo)-resistant single-cell-originated clones were isolated and expanded by selection in medium containing 1 mg/mL G418 for 14 days (1). The BCL2 Jurkat cell line produces over-expression of human BCL-2.
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose, 10% of fetal bovine serum nd 200 mcg/mL G418.
Subculturing:	An inoculum of 2 x 105 to 3 x 105 cells/mL is recommended. Subculture when cell concentration is 2 x 106 cells/mL.
Subculturing Medium Renewal:	Add fresh medium every 3 to 4 days (depending on cell density)
Subculturing Subcultivation Ratio:	1:2 to 1:10 is recommended
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C
Cryopreservation:	95% FBS + 5% DMSO (Dimethyl sulfoxide)

Thawing Frozen Cells:	SAFETY PRECAUTION: Is highly recommend that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the Oring and cap out of the water. Thawing should be rapid (approximately 2 minutes). 2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions. 3. For cells that are sensitive to DMSO is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4.Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in a appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).
References:	Yamamoto K, et al. BCL-2 is Phosphorylated and Inactivated by an ASK1/Jun N-Terminal Protein Kinase Pathway normally Activated at G2/M. Mol Cell Biol. Dec;19(12):8469-78. 1999. PubMed: 10567572
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