BCRJ Code:	0277
Cell Line:	BL3.1
Species:	Bos taurus
Vulgar Name:	Cow, Bovine
Cell Type:	B Lymphocyte
Morphology:	Lymphoblast
Disease:	Lymphosarcoma
Growth Properties:	Suspension
Sex:	Male
Age/Ethinicity:	3 Month /
Derivation:	BL3.1 is a B-lymphosarcoma cell line derived in 1990 by irradiation of the bovine B-lymphoblastoid cell line, BL-3. The BL-3 cell line was isolated from a 3-month-old male Hereford calf.
Applications:	They can be used in BLV and retroviral studies and as a target for NK assays
Products:	BOVINE LEUKEMIA VIRUS (BLV)
Biosafety:	1
Addtional Info:	BL3.1 cells are a major histocompatibility complex (MHC) transcriptional loss variant; the cells exhibit no expression of MHC class I and high expression of MHC class II. Few cell lines express only MHC class II. The cell line is positive for bovine leukemia virus (BLV) and actively produces BLV.
Culture Medium:	RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose with 10% of fetal bovine serum.

Subculturing:	Cultures can be maintained by addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension in fresh medium at 5 x 10 exp5 viable cells/ml. Maintain cultures at cell concentrations between 5 X 10 exp5 and 2 X 10 exp6 viable cells/ml.
Subculturing Medium Renewal:	2 to 3 times a week
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:	Harms JS, Splitter GA. Impairment of MHC class I transcription in a mutant bovine B cell line. Immunogenetics 35: 1-8, 1992.
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ATCC: CRL-2306