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: 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:	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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Cellosaurus:	CVCL_3455