

Data Sheet

PAGE 1/3

BCRJ Code:	030
Cell Line:	A20 [A-20]
Species:	Mus musculus
Vulgar Name:	Mouse, Balb/Cann
Tissue:	B Lymphocyte
Morphology:	Lymphoblast
Disease:	Reticulum Cell Sarcoma
Growth Properties:	Suspension
Derivation:	The A20 cell line is a BALB/c B cell lymphoma line derived from a spontaneous reticulum cell neoplasm found in an old BALB/cAnN mouse.
Applications:	This cell line is a suitable transfection host
Tumor Formation::	YES
Products:	immunoglobulin (surface, sIg+)
Biosafety:	1
Additional Info:	The cells express little surface immunoglobulin when grown in Click's medium; however, they express large amounts when grown in RPMI 1640 medium. The cells can present both alloantigens and protein antigens.
Culture Medium:	RPMI-1640 medium 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 of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1×10^5 viable cells/mL. Maintain cultures at a cell concentration between 1×10^5 and 1×10^6 cells/mL. NOTE: Do not allow the cell concentration to exceed 1×10^6 cells/mL.

Subculturing Medium Renewal:

Every 2 to 3 days

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 highly recommended 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 submerged 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 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 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 it 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 $125 \times g$ 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 an 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:

Kim KJ, et al. Establishment and characterization of BALB/c lymphoma lines with B cell properties. *J. Immunol.* 122: 549-554, 1979. PubMed: 310843 Glimcher LH, et al. Ia antigen-bearing B cell tumor lines can present protein antigen and alloantigen in a major histocompatibility complex-restricted fashion to antigen-reactive T cells. *J. Exp. Med.* 155: 445-459, 1982. PubMed: 6460073 Li YM, et al. Molecular identity and cellular distribution of advanced glycation endproduct receptors: relationship of p60 to OST-48 and p90 to 80K-H membrane proteins. *Proc. Natl. Acad. Sci. USA* 93: 11047-11052, 1996. PubMed: 8855306 Mallick-Wood CA, et al. Disruption of epithelial gamma delta T cell repertoires by mutation of the Syk tyrosine kinase. *Proc. Natl. Acad. Sci. USA* 93: 9704-9709, 1996. PubMed: 8790395 Hartley D, Corvera S. Formation of c-Cb1-phosphatidylinositol 3-kinase complexes on lymphocyte membranes by a p56lck-independent mechanism. *J. Biol. Chem.* 271: 21939-21943, 1996. PubMed: 8702998 Chen H, et al. Octamer binding factors and their coactivator can activate the murine PU.1 (spi-1) promoter. *J. Biol. Chem.* 271: 15743-15752, 1996. PubMed: 8663022 Kim KJ, et al. Establishment and characterization of BALB/c lymphoma lines with B cell properties. *J. Immunol.* 122: 549-554, 1979. PubMed: 310843

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ATCC:

TIB208