Data Sheet

BCRJ Code:	0006
Cell Line:	2.4G2
Species:	Rattus norvegicus (B cell); Mus musculus (myeloma), rat (B cell); mouse (myeloma)
Vulgar Name:	Rat/Mouse
Cell Type:	Hybridoma: B Lymphocyte
Morphology:	Lymphoblast
Growth Properties:	Suspension
Derivation:	Animals were immunized with the J774 mouse macrophage cell line. Spleen cells were fused with P3U1 myeloma cells.
Applications:	The antibody can be used to block non-specific binding to Fc gamma bearing cells.
Tumor Formation::	YES
Products:	immunoglobulin; monoclonal antibody; against the Fc gamma receptor (FcRII, CD32)
Biosafety:	1
Addtional Info:	The antibody reacts with and immunoprecipitates the 50000 dalton to 70000 dalton Fc gamma receptor on macrophages and Fc gamma bearing lymphoid cells.
Culture Medium:	Dulbecco's modified Eagle's medium with 4 mM L-glutamine, 4.5 g/L glucose and 5% of horse serum and 5% of fetal bovine serum.

Subculturing:	Cultures can be maintained by addition of fresh medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1 x 10e5 viable cells/mL. Maintain cultures at a cell concentration between 1 x 10e5 and 1 x 10e6 cells/mL. NOTE: Do not allow the cell concentration to exceed 1 x 10e6 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 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:	Unkeless JC. Characterization of a monoclonal antibody directed against mouse macrophage and lymphocyte Fc receptors. J. Exp. Med. 150: 580-596, 1979. PubMed: 90108 Mellman IS, Unkeless JC. Purification of a functional mouse Fc receptor through the use of a monoclonal antibody. J. Exp. Med. 152: 1048-1069, 1980. PubMed: 6158545 Nussenzweig MC, et al. Studies of the cell surface of mouse dendritic cells and other leukocytes. J. Exp. Med. 154: 168-187, 1981. PubMed: 7252426 Yoshikai Y, et al. Clonal expansion of superantigen-reactive T cells is resistant to FK506 in mice with AIDS. J. Virol. 71: 746-749, 1997. PubMed: 8985410 Wilson ME, et al. Local suppression of IFN-gamma in hepatic granulomas correlates with tissue-specific replication of Leishmania chagasi. J. Immunol. 156: 2231-2239, 1996. PubMed: 8690913 Hay, R. J., Caputo, J. L., and Macy, M. L., Eds. (1992), ATCC Quality Control Methods for Cell Lines. 2nd edition, Published by ATCC. Caputo, J. L., Biosafety procedures in cell culture. J. Tissue Culture Methods 11:223-227, 1988. Fleming, D.O., Richardson, J. H., Tulis, J.J. and Vesley, D., (1995) Laboratory Safety: Principles and Practice. Second edition, ASM press, Washington, DC.
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