Data Sheet

BCRJ Code:	0152
Cell Line:	M1/70.15.11.5.HL
Species:	Rattus norvegicus (B cell); Mus musculus (myeloma), rat (B cell); mouse (myeloma)
Vulgar Name:	Rat/Mouse
Tissue:	Spleen
Cell Type:	Hybridoma: B Lymphocyte
Morphology:	Lymphoblast
Growth Properties:	Suspension
Derivation:	Spleen cells were fused with NS-1 myeloma cells.
Applications:	The antibody precipitates two polypeptides of 190000 and 105000 daltons, binds to human monocytes, polymorphonuclear leukocytes and a small population of lymphocytes.
Products:	immunoglobulin; monoclonal antibody; against mouse macrophage, granulocyte (Mac-1, alpha chain)
Biosafety:	1
Addtional Info:	Animals were immunized with C57BL/10 mouse spleen cells enriched for T lymphocytes. Spleen cells were fused with NS-1 myeloma cells. Mac-1 is a mouse macrophage differentiation associated with type three complement receptor (CR3). The antigen is expressed in large amounts on thioglycollate induced peritoneal exudate macrophages and in lesser quantities on neutrophilic granulocytes, blood monocytes. 8% of spleen cells, 44% of bone marrow cells and less than 0.3% of thymus cells react with the antibody. The antibody precipitates two polypeptides of 190000 and 105000 daltons, binds to human monocytes, polymorphonuclear leukocytes and a small population of lymphocytes. The antibody is capable of both natural killing and antibody dependent cellular cytotoxicity.

Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) 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 the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1 to 2 X 10(5) viable cells/ml. Interval: Maintain cell density between 1 X 10(5) and 1 X 10(6) viable 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: 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:	Springer T, et al. Monoclonal xenogeneic antibodies to murine cell surface antigens: identification of novel leukocyte differentiation antigens. Eur. J. Immunol. 8: 539-551, 1978. PubMed: 81133 Springer T, et al. Mac-1: a macrophage differentiation antigen identified by monoclonal antibody. Eur. J. Immunol. 9: 301-306, 1979. PubMed: 89034 Springer TA. Monoclonal antibody analysis of complex biological systems. Combination of cell hybridization and immunoadsorbents in a novel cascade procedure and its application to the macrophage cell surface. J. Biol. Chem. 256: 3833-3839, 1981. PubMed: 7217058 Sanchez-Madrid F, et al. Mapping of antigenic and functional epitopes on the alpha-and beta-subunits of two related mouse glycoproteins involved in cell interactions, LFA-1 and MAC-1. J. Exp. Med. 158: 586-602, 1983. PubMed: 6193226 Springer TACell -surface differentiation in the mouse: Characterization of Jumping and Lineage antigens using xenogeneic rat monoclonal antibodiesIn: Springer TAMonoclonal AntibodiesNew YorkPlenum Presspp. 185-217, 1980 Zhang L, Plow EF. Overlapping, but not identical, sites are involved in the recognition of C3bi, neutrophil inhibitory factor, and adhesvie ligands by the alpha M beta 2 integrin. J. Biol. Chem. 271: 18211-18216, 1996. PubMed: 8663418 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
Depositors:	Banco de Células do Rio de Janeiro
ATCC:	TIB-128
Cellosaurus:	CVCL_9207