

Data Sheet

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BCRJ Code:	0373
Cell Line:	MONO-MAC-6
Species:	Homo sapiens
Vulgar Name:	Human
Morphology:	Single, round/multiformed cells or small clusters of cells in suspension, sometimes loosely adherent; 1-5% giant cells.
Disease:	Acute Monocytic Leukemia
Growth Properties:	suspension, sometimes loosely adherent
Sex:	Male
Age/Ethnicity:	64 Year /
Derivation:	Established from the peripheral blood of a 64-year-old man with relapsed acute monocytic leukemia (AML FAB M5) in 1985 following myeloid metaplasia.
Biosafety:	1
Culture Medium:	RPMI 1640 with 2 mM L-glutamine, 10 µg/mL human insulin and 10% of fetal bovine serum.
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 0,3 X 10 ⁶ viable cells/mL. Maintain cell density between 0,3 X 10 ⁶ and 1.0 X 10 ⁶ viable cells/mL. NOTE: Do not allow the cell concentration to exceed 3 x 10 ⁶ cells/mL.
Subculturing Subcultivation Ratio:	1:3 a 1:5
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO ₂), 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:

Drexler, H. G., Quentmeier, H., MacLeod, R. A. (2004). Malignant hematopoietic cell lines: in vitro models for the study of MLL gene alterations. *Leukemia : official journal of the Leukemia Society of America, Leukemia Research Fund, U.K* 18 (2): 227-232 .
<http://www.ncbi.nlm.nih.gov/pubmed/14671638> Ziegler-Heitbrock, H. W., Thiel, E., Fütterer, A., Herzog, V., Wirtz, A., Riethmüller, G. (1988). Establishment of a human cell line (Mono Mac 6) with characteristics of mature monocytes. *International journal of cancer. Journal international du cancer* 41 (3): 456-461 .
<http://www.ncbi.nlm.nih.gov/pubmed/3162233>. Taktak, Y. S., Selkirk, S., Bristow, A. F., Carpenter, A., Ball, C., Rafferty, B., Poole, S. (1991). Assay of pyrogens by interleukin-6 release from monocytic cell lines. *J Pharm. Pharmacol* 43 (8): 578-582 .
<http://www.ncbi.nlm.nih.gov/pubmed/1681074>. Hoffmann, S., Peterbauer, A., Schindler, S., Fennrich, S., Poole, S., Mistry, Y., Montag-Lessing, T., Spreitzer, I., Loschner, B., van, A. M., Bos, R., Gommer, M., Nibbeling, R., Werner-Felmayer, G., Loitzl, P., Jungi, T., Brcic, M., Brugger, P., Frey, E., Bowe, G., Casado, J., Coecke, S., de, L. J., Mogster, B., Naess, L. M., Aaberge, I. S., Wendel, A., Hartung, T. (2005). International validation of novel pyrogen tests based on human monocytoïd cells. *J Immunol. Methods* 298 (1-2): 161-173 .
<http://www.ncbi.nlm.nih.gov/pubmed/15847806> (2012). The Monocytoïd Cell Line Mono Mac 6 (MM6)/IL-6 In Vitro Pyrogen Test. ICCVAM Test Method Evaluation Report: Appendix C5 <http://iccvam.niehs.nih.gov/docs/pyrogen/TMER/Appx-C5.pdf>.

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