BCRJ Code:	0105
Cell Line:	HNK-1 [HNK1, Leu7]
Species:	Mus musculus (B cell); Mus musculus (myeloma), mouse (B cell); mouse (myeloma)
Vulgar Name:	Mouse
Tissue:	Spleen
Cell Type:	Hybridoma: B Lymphocyte
Morphology:	Lymphoblast
Growth Properties:	Suspension
Derivation:	Spleen cells were fused with P3X63Ag8.653 myeloma cells.
Products:	immunoglobulin; monoclonal antibody; against human natural killer (NK) cells and antigen dependent killer (K) cells (CD57)
Biosafety:	1
Addtional Info:	Animals were immunized with a membrane extract of the human lymphoblastoid cell line HSB-2. Spleen cells were fused with P3X63Ag8.653 myeloma cells. The antibody also reacts with glycoproteins present on Schwann cells, oligodendrocytes and embryonic neurons. The cells will not grow if the medium lacks 2-mercaptoethanol.
Culture Medium:	RPMI 1640 medium with 2 mM L-glutamine, 4.5 g/L glucose, 0.02 mM 2-mercaptoethanol and 20% 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. Population Doubling Time about: 24-30 hours

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:	Abo T, Balch CM. A differentiation antigen of human NK and K cells identified by a monoclonal antibody (HNK-1). J. Immunol. 127: 1024-1029, 1981. PubMed: 6790607 Abo T, et al. Postnatal expansion of the natural killer and killer cell population in humans identified by the monoclonal HNK-1 antibody. J. Exp. Med. 155: 321-326, 1982. PubMed: 7054358 Schuller-Petrovic S, et al. A shared antigenic determinant between natural killer cells and nervous tissue. Nature 306: 179-181, 1983. PubMed: 6196639 McGarry RC, et al. Recognition of myelin-associated glycoprotein by the monoclonal antibody HNK-1. Nature 306: 376-378, 1983. PubMed: 6196641 Vincent M, Thiery JP. A cell surface marker for neural crest and placodal cells: further evolution in peripheral and central nervous system. Dev. Biol. 103: 468-481, 1984. PubMed: 6202575 McBurney MW, et al. Differentiation and maturation of embryonal carcinoma-derived neurons in cell culture. J. Neurosci. 8: 1063-1073, 1988. PubMed: 2894413 Tucker GC, et al. Identical reactivity of monoclonal antibodies HNK-1 and NC-1: conservation in vertebrates on cells derived from the neural primordium and on some leukocytes. Cell Differ. 14: 223-230, 1984. PubMed: 6207939
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