Product sheet

NCI-H929 Cells | 305236

Description	The NCI-H929 cell line is a human myeloma cell line derived from the bone marrow of a patient with multiple myeloma, a type of cancer that forms in plasma cells. These cells are particularly useful in cancer research due to their ability to produce large amounts of immunoglobulin, making them a prime model for studying the biology of multiple myeloma and the mechanisms of immunoglobulin production. The NCI-H929 cells grow as a suspension culture and have a doubling time of approximately 40 hours, making them relatively easy to propagate in laboratory conditions. Genetically, NCI-H929 cells exhibit several chromosomal abnormalities commonly associated with multiple myeloma, including translocations and amplifications. These genetic features make them an invaluable resource for studying the genetic underpinnings of myeloma and testing potential therapeutic interventions. Researchers often utilize NCI-H929 cells in drug screening assays to evaluate the efficacy of new anti-myeloma compounds and to understand drug resistance mechanisms. Their consistent and reproducible behavior under various experimental conditions further enhances their utility in preclinical studies.
Organism	Human
Tissue	Bone marrow
Disease	Multiple myeloma
Metastatic site	Pleural effusion
Synonyms	NCI H929, NCIH929, H929, H-929

Age	62 years
Gender	Female
Ethnicity	European
Morphology	Lymphoblast
Cell type	B lymphocyte
Growth properties	Suspension

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Citation	NCI-H929 (Cytion catalog number 305236)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1600

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 10% FBS
Subculturing	Suspension cells: Remove cells from substrate by pipetting with fresh medium. To obtain single cells, pass the suspension several times through a 22 gauge needle and dispense into new flasks.
Freeze medium	As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress.

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Thawing and Culturing Cells

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
7. Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

Incubation Atmosphere

37°C, 5% CO_2, humidified atmosphere.

Shipping Conditions

Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.

Storage Conditions

For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

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Sterility	Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods. To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.