Product sheet

NR8383 Cells | 305200

General information

Description	The cells were cultured in the presence of gerbil lung cell conditioned medium for approximately 8 to 9 months.Subsequently the requirement for exogenous growth factors was lost.The cells exhibit characteristics of macrophage cells.Phagocytosis of zymosan and Pseudomonas aeruginosa, nonspecific esterase activity, Fc receptors, oxidative burst,IL-1, TNF beta and IL-6 secretion, and replicative response to exogenous growth factors.The cells respond to appropriate microbial, particulate or soluble stimuli with phagocytosis and killing.NR8383 cells respond to bleomycin by secreting latent transforming growth factor(TGF beta).Stimulation with bleomycin also increases TGF beta mRNA expression.These cells are sensitive to endotoxin.LPS levels of 1 to 10 ng/mL inhibit replication by 50%.LPS inhibition is nontoxic and reversible even after levels up to 0.001mg/mL for extended periods.
Organism	Rat
Tissue	Lung
Synonyms	NR-8383, NR 8383, NR8383.1, NR8383 clone AgCl1x3A, AgC11x3A, Normal Rat, August 3, 1983

Characteristics

Breed/Subspecies	Sprague Dawley
Age	Adult
Gender	Male
Morphology	Macrophage
Growth properties	Adherent/suspension

Regulatory Data

Citation	NR8383 (Cytion catalog number 305200)
Biosafety level	1
NCBI_TaxID	10116
CellosaurusAccession	CVCL_4396

Biomolecular Data

Receptors expressed	Fc
Protein expression	Transforming Growth Factor Beta(Tgf Beta), Interleukin 1(Il-1), Interleukin 6(Il-6)

Handling

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 15% heat-inactivated FBS
Dissociation Reagent	Accutase, only of the adherent cells, floating cells must be collected separately.
Subculturing	Gather the suspension cells in a 15 ml tube and gently wash the adherent cells with PBS lacking calcium and magnesium (use 3-5 ml for T25 flasks and 5-10 ml for T75 flasks). Apply Accutase (1-2 ml for T25 flasks, 2.5 ml for T75 flasks) ensuring full coverage of the cell layer. Allow the cells to incubate at room temperature for 10 minutes. Following incubation, combine and centrifuge both the suspension and adherent cells. After centrifugation, carefully resuspend the cell pellet and transfer the cell suspension into new flasks containing fresh medium.
Fluid renewal	2 to 3 times per week
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.

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.

Quality Control & Molecular Analysis

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.