

U266 Cells | 300259

General information

Description

The U266 cell line, also known as U-266, is a human multiple myeloma cell line that was established from the peripheral blood of a 53-year-old man with IgE myeloma. This cell line is characterized by the secretion of both light and heavy immunoglobulin chains, predominantly lambda light chains and IgE heavy chains. The U266 cell line exhibits typical B lymphocyte markers and has been used extensively in the study of myeloma biology, particularly in understanding the pathophysiological mechanisms of plasma cell malignancies and the immune response.

U266 cells are valuable for their role in drug discovery and development, providing a robust model for evaluating the efficacy of anti-myeloma agents. They are also utilized in the study of myeloma cell interactions with the bone marrow microenvironment, which is crucial for understanding myeloma progression and resistance to therapy. Genetic studies have revealed several chromosomal abnormalities in U266 cells, which contribute to their malignant phenotype and resistance to apoptosis. This cell line has been instrumental in the advancement of molecular targeted therapies in multiple myeloma.

Organism Human

Tissue Plasma cell

Disease Multiple Myeloma

Synonyms U266B1, U266-B1, U266 B1, U-266, U 266, U266S, U266BL, U266

Characteristics

Age 53 years

Gender Male

Growth properties Suspension

Regulatory Data

Citation U266 (Cytion catalog number 300259)

Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_0566

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Biomolecular Data

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO ₃ (Cytion article number 820700a)
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 2 x 10 ⁵ cells/ml and keep the cell concentration within the range of 1 x 10 ⁵ to 1 x 10 ⁶ cells/ml for optimal growth.
Split ratio	A ratio of 1:2 to 1:4 is recommended
Seeding density	1 x 10 ⁵ cells/mL
Freeze medium	As a cryopreservation medium, 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.

Quality Control & Molecular Analysis

Sterility	<p>Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.</p> <p>To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.</p>
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STR profile	<p>Amelogenin: x,x</p> <p>CSF1PO: 12,13</p> <p>D13S317: 12</p> <p>D16S539: 10</p> <p>D5S818: 11,12</p> <p>D7S820: 11,12</p> <p>TH01: 5,7</p> <p>TPOX: 8</p> <p>vWA: 17</p> <p>D3S1358: 17</p> <p>D21S11: 28,39</p> <p>D18S51: 12,14</p> <p>Penta E: 10,12</p> <p>Penta D: 10,13</p> <p>D8S1179: 13</p> <p>FGA: 18</p> <p>PEZ6: JEG-3</p>
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