

Y-79 Cells | 300382

General information

Description	The Y79 line was isolated by T.W. Reid and associates in January 1971 by explant culture of a primary tumor from the right eye obtained immediately after enucleation. The donor had a strong maternal family history of retinoblastoma. Ultrastructural features including nuclear membrane infoldings, triple membrane structures, microtubules, large coated vesicles, centrioles, basal bodies and annulate lamellae were reportedly similar to those of the original tumor.
Organism	Human
Tissue	Retina
Disease	Retinoblastoma
Synonyms	Y79, GM01232, GM01232E

Characteristics

Age	2,5 years
Gender	Female
Ethnicity	Caucasian
Morphology	Multicellular clusters
Growth properties	Clusters in Suspension

Regulatory Data

Citation	Y-79 (Cytion catalog number 300382)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_1893

Biomolecular Data

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Isoenzymes	PGM1, 1, G6PD, B, ES-D, 1, AK-1, 1, GLO-1, 2, Phenotype Frequency Product: 0.1373
Reverse transcriptase	Negative
Karyotype	Hypertriploid, with abnormalities including dicentrics, breaks, pulverizations and minutes

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Subculturing	Maintain cultures by periodically adding or replacing the medium. Initiate cultures with a density of 2×10^5 cells/ml and keep the cell concentration within the range of 1×10^5 to 1×10^6 cells/ml for optimal growth.
Split ratio	A ratio of 1:2 to 1:4 is recommended
Seeding density	1×10^5 cells/ml
Fluid renewal	Every 3 days
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

CSF1PO: 11,12
D13S317: 11,12
D16S539: 13,14
D5S818: 11,12
D7S820: 8,9
TH01: 6,9.3
TPOX: 8
vWA: 15,18
D3S1358: 15,16
D21S11: 30,32
D18S51: 13,16
Penta E: 13,18
Penta D: 12
D8S1179: 13,16
FGA: 22

HLA alleles

A*: '02:01:01
B*: '40:01:02, '51:01:01
C*: '03:04:01, '12:03:01
DRB1*: '01:01:01, '13:02:01
DQA1*: '01:01:01, '01:02:01
DQB1*: '05:01:01, '06:04:01
DPB1*: '03:01:01, '04:01:01
E: '01:01, '01:03