

RPMI 1788 Cells | 300318

**General information**

<b>Description</b>	The RPMI 1788 cell line was derived from the peripheral blood of an apparently normal patient. The cells are EBNA positive.
<b>Organism</b>	Human
<b>Tissue</b>	Peripheral blood
<b>Synonyms</b>	RPMI-1788, RPMI1788, Roswell Park Memorial Institute 1788, GM02131, GM2131, GM02131A, GM17219

**Characteristics**

<b>Age</b>	33 years
<b>Gender</b>	Male
<b>Ethnicity</b>	Caucasian
<b>Morphology</b>	Round cells
<b>Cell type</b>	B lymphoblast
<b>Growth properties</b>	Suspension

**Identifiers / Biosafety / Citation**

<b>Citation</b>	RPMI 1788 (Cytion catalog number 300318)
<b>Biosafety level</b>	2

**Expression / Mutation**

<b>Antigen expression</b>	HLA A2, Aw33, B7, B14
<b>Isoenzymes</b>	G6PD, B
<b>Viruses</b>	EBNA-pos

RPMI 1788 Cells | 300318

**Reverse transcriptase** Negative

**Products** IgM (lambda light chain), lymphotoxin (LT) also known as tumor necrosis factor beta (TNF-beta, TNF beta)

**Karyotype** Human male, hypodiploid, stable

**Handling**

**Culture Medium** RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

**Medium supplements** Supplement the medium with 10% FBS

**Passaging solution** The utilization of a passaging solution is not necessary when passaging cells that are cultured in suspension. The appropriate procedure is to dilute the cells in accordance with the indicated guidelines.

**Subculturing** Start new cultures at  $3 \times 10^5$  viable cells/ml and subculture at  $1 \times 10^6$  cells/ml. Prepare dilutions by transferring the appropriate amount of cell suspension into new flasks with fresh medium.

**Split ratio** A ratio of 1:2 to 1:4 is recommended

**Seeding density**  $1 \times 10^5$  cells/mL

**Freezing recovery** Low viability after thawing. Good recovery after 8 days

**Freeze medium** CM-1 (Cytion catalog number 800100) or CM-ACF (Cytion catalog number 806100)

**Handling of cryopreserved cultures** RPMI 1788 cells are shipped in a deep-frozen state on dry ice. Upon receipt, confirm that the vial remains frozen. For storage, place the cryovial immediately at temperatures below -150 degrees. If you plan to culture the cells immediately, swiftly thaw the vial by shaking it in a 37 degrees water bath with clean water and an antimicrobial agent for 40-60 seconds. Remove the vial once a small ice clump persists, ensuring it remains cold. Proceed with all subsequent steps under aseptic conditions. In a sterile flow hood, disinfect the cryovial with 70% ethanol. Then, gently open the vial and transfer the cell suspension into a 15 ml centrifuge tube pre-filled with 8 ml of room temperature culture medium. Gently mix the cells. For cell separation, centrifuge at  $300 \times g$  for 3 minutes and dispose of the supernatant. Skipping centrifugation is optional, although any residual freezing medium should be removed after 24 hours. Resuspend the pellet gently in 10 ml of fresh culture medium and divide between two T25 culture flasks. Follow the subculture protocol for subsequent steps.

## RPMI 1788 Cells | 300318

### Handling of proliferating cultures

One or two cell culture flasks come filled with cell culture medium. Collect the entire medium in a 50 ml centrifuge tube. Spin down the collected medium at 300 x g for 3 minutes to collect the cells which may have detached during transit. If a cell pellet is visible, resuspend the cells in 5 ml of cell culture medium and transfer to a T25 cell culture flask. Carefully add 5 ml of cell culture medium to each T25 cell culture flask. Examine cell morphology and confluency using a microscope. Finally, incubate the flasks at 37 degrees Celsius for at least 24 hours.

## Quality control / Genetic profile / HLA

### Sterility

Mycoplasma contamination is rigorously 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.

### STR profile

**Amelogenin:** x,Y  
**CSF1PO:** 10  
**D13S317:** 11,13  
**D16S539:** 10,13  
**D5S818:** 12,13  
**D7S820:** 10,12  
**TH01:** 6,9,3  
**TPOX:** 8,9  
**vWA:** 18,19  
**D3S1358:** 13,16  
**D21S11:** 31,32.2  
**D18S51:** 15,17  
**Penta E:** 7,11  
**Penta D:** 12,13  
**D8S1179:** 13,14  
**FGA:** 20,23

### HLA alleles

**A\*:** 02:01:01, 09:01:01  
**B\*:** 07:06:01, 14:01:01  
**C\*:** 08:02:01, 15:05:02  
**DRB1\*:** 04:05:01, 07:01:01  
**DQA1\*:** 02:01:01, 03:03:01  
**DQB1\*:** 02:02:01, 03:02:01  
**DPB1\*:** 03:01:01G, 21:01  
**E:** 01:01, 01:03