Product Information

RPMI 1640 Advanced, w/o L-Glutamine

Catalogue Number: GBRP01 / 01F

General Information

Based on the conventional media composition, RPMI 1640 Advanced contains cutting-edge nutrients including insulin, transferrin, and trace elements. It is feasible to replenish fetal bovine serum (FBS) for mammalian cell growth in vitro 50–90% less often because of the additional nutrients.

RPMI 1640 Advanced stimulates cellular proliferation and peak cell densities similar to, and in some cases better than, the typical basal formulation supplemented with 10% FBS.

Serum reduction improves the reliability, consistency, and repeatability of experimental results by lowering the variability resulting from ambiguous serum contents.

Product Specification

Appearance	:	Clear red orange solution
CO2 concentration, optimum	:	4.5 %
Storage & Shelf Life	:	Store at +2°C to +8°C protected from light. Once opened, store at 4° C and use within 6-8 weeks.
Shipping Conditions	:	Ambient

Directions for usage

Serum concentrations should be between 1% and 5% foetal bovine serum when using RPMI 1640 Advanced. To achieve the best results, it is important to consider that the proportion of serum drop may vary between various cell lines.

Method of adjustment:

Adapting progressively to a reduced serum level is necessary for some cell types. Certain cell lines cannot be drastically reduced. For sensitive cell lines, we thus suggest continuing with a stepwise adaptation.

1% serum supplementation from 10%, as an example:

Reduction step	FBS content	RPMI 1640 Advanced content
1. Passage (25% Reduction)	7.5%	92.5%
2. Passage	5.0%	95.0%
3. Passage	2.5%	97.5%
4. Passage	1.0%	99.0%

A typical cell morphology and growth should only be seen before moving on to the next paragraph. If the doubling time rapidly decreases, stop and restart the passage with the same FBS concentration. If FBS can no longer be reduced without compromising its functioning, the last serum reduction stage for your cell line has been reached.

The conversion can be achieved by simply centrifuging the cells, collecting the supernatant, and resuspending them on a medium enriched with less serum.

If you use antibiotics, we advise changing your dosage to match your serum level.

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Formulation

Components	Concentration mg/L
Vitamins:	
p-Amino Benzoic Acid	1.00
Ascorbic Acid phosphate	2.50
D-Biotin	0.20
Choline chloride	3.00
D-Calcium Pantothenate	0.25
Folic Acid	1.00
myo-Inositol	35.00
Nicotinamide	1.00
Pyridoxal HCl	1.00
Riboflavin	0.20
Thiamine HCl	1.00
Vitamin B12	0.005
Inorganic Salts:	
Ca(NO3)2·4 H2O	100.00
KCl	400.00
MgSO4	48.84
NaCl	6000.00
NaHCO3	2000.00
NaH2PO4	800.00
ZnSO4 · 7 H2O	0.874
Other Components:	
D-Glucose	2000.00
Ethanolamine	1.90
Glutathione (reduced)	1.00
Phenol Red Sodium Salt	5.00
Sodium Pyruvate	110.00
Proteins:	
BSA	400.00
Holo-Transferrin (human)	7.50
Insulin (recombinant, human)	10.00

Components	Concentration mg/L
Amino Acids:	
Glycine	10.00
L-Alanine	8.90
L-Arginine	200.00
L-Asparagine	50.00
L-Aspartic acid	20.00
L-Cystine 2 HCl	65.00
L-Glutamic acid	20.00
L-Histidine	15.00
L-Hydroxy-L-Proline	20.00
L-Isoleucine	50.00
L-Leucine	50.00
L-Lysine HCl	40.00
L-Methionine	15.00
L-Phenylalanine	15.00
L-Proline	20.00
L-Serine	30.00
L-Threonine	20.00
L-Tryptophan	5.00
L-Tyrosine 2 Na	29.00
L-Valine	20.00
Trace Elements:	
Ammonium Metavanadate	0.0003
Cupric Sulfate	0.00125
Manganous Sulfate	0.0000427
Sodium Selenite	0.005

This product is for research use only.

Need help?

If you have any further queries, please feel free to email our cell culture specialists at info@genexisbiotech.com