



Product Information

RPMI 1640 Advanced, w/o L-Glutamine

Catalog no: 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.

Appearance	Clear red orange solution
CO ₂ concentration, optimum	4.5 %
Storage and 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.

Disclaimer:

User must ensure suitability of the product(s) in their application prior to use. Products conform solely to the information contained in this and other related Products are not intended for human or animal diagnostic or therapeutic use but for laboratory, research or further manufacturing use only, unless otherwise specified. Statements contained herein should not be considered as a warranty of any kind, expressed or implied, and no liability is accepted for infringement of any patents.



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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(NO ₃) ₂ ·4 H ₂ O	100.00
KCl	400.00
MgSO ₄	48.84
NaCl	6000.00
NaHCO ₃	2000.00
NaH ₂ PO ₄	800.00
ZnSO ₄ · 7 H ₂ O	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

Need Help?

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

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