

## Product Information

RPMI 1640 Advanced, w/o L-Glutamine, with Non-Essential Amino Acids, with Sodium Pyruvate  
Cat. No. RPMI-ADV-500ML

### General Information

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RPMI 1640 Advanced is based on the classical media formulation supplemented with advanced nutrients like Insulin, Transferrin and Trace elements. The additional nutrients enable a 50-90% less Fetal Bovine Serum (FBS) supplementation required for the *in vitro* cell culture of mammalian cells.

RPMI 1640 Advanced supports cellular proliferation and maximum cell densities comparable, and in some cases superior, to the conventional basal formulation supplemented with 10% FBS.

Serum reduction improves the consistency, safety and reproducibility of experimental results by decreasing the variability caused due to undefined serum constituents.

Appearance	Clear red orange solution
CO <sub>2</sub> 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

### Instructions for Use:

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- Recommended concentrations of serum using RPMI 1640 Advanced ranges from 1-5 % Fetal Bovine Serum
- No weaning procedures are necessary to reduce serum supplementation by at least 50%.
- The percentage of serum reduction may vary according to cell lines and should be adjusted to achieve optimal results.
- The conversion can be made by simply centrifuging the cells, decanting the supernatant, and resuspending them in the reduced-serum supplemented medium.
- If using antibiotics, we recommend reducing the amount in proportion to the amount of serum.

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### Formulation

Components	Concentration mg/L
<b>Amino Acids:</b>	
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-Glutamine	300.00
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
<b>Vitamins:</b>	
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

Components	Concentration mg/L
Pyridoxal HCl	1.00
Riboflavin	0.20
Thiamine HCl	1.00
Vitamin B12	0.005
<b>Inorganic Salts:</b>	
Ca(NO <sub>3</sub> ) <sub>2</sub> · 4 H <sub>2</sub> O	100.00
KCl	400.00
MgSO <sub>4</sub>	48.84
NaCl	6000.00
NaHCO <sub>3</sub>	2000.00
NaH <sub>2</sub> PO <sub>4</sub>	800.00
ZnSO <sub>4</sub> · 7 H <sub>2</sub> O	0.874
<b>Proteins:</b>	
BSA	400.00
Holo-Transferrin (human)	7.50
Insulin (recombinant, human)	10.00
<b>Trace Elements:</b>	
Ammonium Metavanadate	0.0003
Cupric Sulfate	0.00125
Manganous Sulfate	0.0000427
Sodium Selenite	0.005
<b>Other Components:</b>	
D-Glucose	2000.00
Ethanolamine	1.90
Glutathione (reduced)	1.00
Phenol Red Sodium Salt	5.00
Sodium Pyruvate	110.00

### Precautions and Disclaimer

This product is for research use only.

### Help Needed?

If you have any further questions regarding this product, please do not hesitate to contact our cell culture experts by email (techservice@capricorn-scientific.com) or phone (+49 6424 944640).