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ITSE+A

Guidelines for Use

ITSE + A Animal Free™

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Recombinant Insulin, Recombinant Transferrin, Selenium, Ethanolamine 100x with Cellastim S

Supplement

Blood-free

Introduction

Insulin, transferrin, selenium and ethanolamine are typically required for optimal cell growth in serum-free media¹. Ethanolamine is a phospholipid precursor that improves the performance of cells in serum-free media² and is required for the growth of some cell types³. Insulin has cell signaling functions and promotes the uptake of glucose and amino acids⁴. Transferrin is a non-toxic carrier of iron and reduces the generation of toxic free-radicals and peroxide⁵. Selenium is required for the activity of glutathione peroxidase, thioredoxin reductase, and other antioxidant enzymes⁶. Albumin has multiple functions in cell culture and has been shown to be beneficial.

Long Term Storage

It is recommended to store ITSE+A AF at -20°C, tightly sealed, and protected from light until use. ITSE+A is stable for 6 months after thaw when stored at 4°C.

Instructions for Use

ITSE+A AF supplement is intended to replace blood-derived ITS+A and ITSE+A products. The components of ITSE+A AF do not contain blood derived components. ITSE+A AF is prepared as a 100x sterile concentrate in Earle's balanced salt solution. The formulation is below.

Component	g/L (100x)
Recombinant human insulin	1.00
Recombinat human transferrin (Optiferrin)	0.55
Sodium Selenite	6.70E-04
Ethanolamine	0.20
Recombinant human albumin (Cellastim S)	20.00

Use of ITSE+A AF may be used to reduce or eliminate serum. For serum reduction, the degree depends on the cell type. For serum-free cell growth, InVitria recommends ITSE+A AF in combination with additional Cellastim S supplementation. Some cell types may show additional benefit by supplementing media with ITSE+A AF at 2x final concentration. For further information or application of ITSE+A AF, please contact InVitria technical support at 1-800-916-8311.

References

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