

★ Storage

Store at 2-8 °C.
Stable for 18 months.
Protected from light.

★ Contents

- Product manual
- Insulin-Transferrin-Selenium Solution II (100X)

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★ Introduction

Serum is a complex supplement containing proteins, growth factors, hormones, amino acids, sugars, trypsin inhibitors, and lipids. Although the major constituents of serum are known such as albumin and transferrin, some of the minor components and their effect on cell growth have not been fully determined. These minor components include nutrients such as amino acids, nucleosides, and sugars, growth factors, hormones, minerals, and lipids.

Downstream purification is the leading disadvantage to using serum in cell culture media. For example, monoclonal antibody production and recombinant protein secretion both require purification to remove serum-derived gamma globulin from the media.

Insulin-Transferrin-Selenium Solution Plus (100X), is a growth supplement that should be added at 10 mL/L medium. Supplementation enables a reduction in the FBS requirements of the culture. The components of ITS are required for optimal performance of cells in serum-free culture. All components are derived from non-animal source.

★ Formular

Recombinant HSA : 0.05g/L
Recombinant Insulin (28 units/mg) : 0.5g/L
Recombinant Transferrin : 0.6g/L
Sodium Selenite : 0.00067g/L
Ethanolamine : 0.01g/L
CuSO₄ : 0.0000016g/L
ZnSO₄ : 0.000863g/L
Ferric citrate : 0.00204g/L

★ Instructions for use

Insulin-Transferrin-Selenium plus is a 100X supplement which is added to conventional media at a ratio of 10 mL of Insulin-Transferrin-Selenium per liter of medium. In general, it is necessary to add 2 to 4% Fetal Bovine Serum to achieve optimal growth, although some established cell cultures may require less serum supplementation following initial adaptation.