

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Native Bovine Apo Transferrin

Catalog No. 228-10069

Synonyms

Serotransferrin, Transferrin, Siderophilin, Beta-1-metal-binding globulin, TF, PRO1557, PRO2086, DKFZp781D0156, Apo Transferrin, ATF.

Introduction

Transferrin is the iron-transport protein of vertebrate serum and donates iron to cells through interaction with a specific membrane receptor, CD71. Transferrin appears to be indispensable for most cells growing in tissue culture.

It is referred to frequently as a growth factor because, in analogy to other growth factor-receptor interactions, proliferating cells express high numbers of transferrin receptors, and the binding of transferrin to their receptors is needed for cells to initiate and maintain their DNA synthesis. Apart from its role as an iron transport protein transferrin acts as a cytokine and has functions that may not be related to its iron-carrying capacity.

Description

Bovine Apo Transferrin is a glycoprotein of approximately 77kDa.

Physical Appearance

Sterile Filtered white lyophilized (freeze-dried) powder.

Formulation

The protein (1mg/ml) was lyophilized with no additives.

Solubility

It is recommended to reconstitute the lyophilized Bovine ATF in sterile $18M\Omega$ -cm H2O not less than $100\mu g/ml$, which can then be further diluted to other aqueous solutions.

Stability

Lyophilized Bovine Apo Transferrin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution Bovine Apo Transferrin should be stored at 4°C between 2-7 days and for future use below -18°C.

Please prevent freeze-thaw cycles.



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Purity

Greater than 97.0% as determined by Cellulose Acetate.

Human Virus Test

FDA approved Plasma from each donor has been tested and found negative for antibody to HIV-1, HIV-2, HCV, HBSAG, HBc, ALT and Syphilis.

Viral inactivation by pasteurization (60°C for 10 hours) has been validated using three different test viruses, with removal of 8-14.5 logs of virus documented.

The purification process has also been found to remove significant additional quantities of virus.

Applications

Bovine Transferrin is a crucial component for the cultivation of mammalian cells in- vitro. Bovine Transferrin is Critical for long-term cells growth in-vitro. Bovine Transferrin is used as detoxificant in media by binding contaminating metal ions. Bovine Transferrin is often used as a nutrient in fermentation media for recombinant protein and biopharmaceutical production. Additional common uses of Bovine Transferrin are Molecular weight, Affinity purification of anti-human transferrin antibodies and also as receptor mediated transfection of molecules such as DNA, into cells.