



## Apo Transferrin Bovine, Native Protein (Serum)

### Product Data Sheet

Cat. No.:	A15110050	A15110150	A15111000
Size:	50 mg	150 mg	1 g

#### DESCRIPTION

*Apo Transferrin Bovine, Native Protein (Serum)* is a glycoprotein purified from bovine serum that has a molecular mass of approximately 77 kDa. It has a low iron content of < 40 ppm.

#### SUMMARY

When not bound to iron, transferrin is known as "apotransferrin". When saturated with iron, transferrin is known as "holotransferrin".

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 frequently referred to 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.

Transferrin is a crucial component for the cultivation of mammalian cells in-vitro. Bovine Transferrin is used as a detoxicant 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 for Bovine Transferrin are affinity purification of anti-bovine transferrin antibodies and also for receptor mediated transfection of molecules (such as DNA) into cells.

#### OTHER NAMES

Bovine ApoTransferrin, iron-free transferrin, Serotransferrin, Transferrin, Siderophilin, Beta-1-metal-binding globulin, TF, PRO1557, PRO2086, DKFZp781D0156, ATF

#### SOURCE

Bovine serum

update.: 2023.10

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### **FORMULATION**

Sterile filtered off-white lyophilized (freeze-dried) powder. The protein (1 mg/ml) was lyophilized with no additives.

### **PURITY**

Greater than 95.0% as determined by SDS-PAGE.

### **IRON CONTENT**

The Iron content was estimated by ICP-OES and was found to be less than 40 ppm.

### **RECONSTITUTION**

It is recommended to reconstitute the lyophilized Apo Transferrin in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 1gr/30ml in 20min. at 20-25C.

### **SHIPPING**

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

### **STORAGE/EXPIRATION**

Store lyophilized Bovine Apo Transferrin at 2-8 ° C; do not freeze.

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.**

### **USAGE**

This product is intended for Laboratory Research Use Only. Not for use in diagnostic or therapeutic procedures. This product may not be used as a pharmaceutical or veterinary drug, agricultural product, or food additive.

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