



## Apo Transferrin Human, Native Protein (Serum)

### Product Data Sheet

Cat. No.:	A13250500	A13251000	A13255000
Size:	500 mg	1 g	5 g

#### Description:

Apo Transferrin Human, Native Protein (Serum) is a glycoprotein purified from human serum that has a molecular mass of approximately 77 kDa. It has a low iron content of ~9 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. Human Transferrin is used as detoxificant in media by binding contaminating metal ions. Human Transferrin is often used as a nutrient in fermentation media for recombinant protein and biopharmaceutical production. Additional common uses for Human Transferrin are affinity purification of anti-human transferrin antibodies and also for receptor mediated transfection of molecules (such as DNA) into cells.

#### Other Names:

Human ApoTransferrin, Serotransferrin, Transferrin, Siderophilin, Beta-1-metal-binding globulin, TF, PRO1557, PRO2086, DKFZp781D0156, ATF

#### Source:

Human serum

update.: 092021

#### Ilex Life Sciences LLC

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**Purity:**

Greater than 98.0% as determined by Coomassie blue stained SDS-PAGE and Cellulose Acetate electrophoresis.

**Iron Content:**

The iron content was estimated by ICP and was found to be 9 ppm.

**Human Virus Test:**

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

**Physical Appearance:**

Sterile filtered white lyophilized (freeze-dried) powder.

**Formulation:**

The protein (10 mg/ml) was lyophilized from 20mM  $\text{NH}_4\text{HCO}_3$  solution. May contain traces of buffer salts.

**Reconstitution:**

It is recommended to reconstitute the lyophilized Apo Transferrin in sterile 18M $\Omega$ -cm H<sub>2</sub>O not less than 100  $\mu\text{g}/\text{ml}$ , which can then be further diluted to other aqueous solutions.

**Shipping:**

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

**Stability:**

Store the lyophilized Apo Transferrin between 2-8° C, do not freeze.

Upon reconstitution 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:**

Ilex Life Sciences products are furnished for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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