

Bovine Transferrin (HOLO)

Information

Alternate Names	Holo-Bovine Transferrin; Serum transferrin; beta-1-Metal-combining protein; Siderophilin
Source	Bovine plasma
M.Wt	Approximately 76 kDa-81 kDa
Appearance	Red to reddish-brown lyophilized powder or cake
Protein Content	≥95%
Iron Content	≥1200 µg/g protein
pH Value	6.0–8.0
Loss on Drying	≤5.0%
Stability & Storage	2–8°C for 3 years
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Quality Control

Purity	≥95%
Endotoxin	Less than 5.0 EU/mg as determined by LAL method.
Virus Detection	Negative

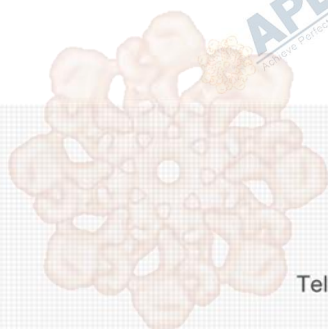
Description

Transferrin is the primary iron-transporting protein in plasma. Through interaction with the specific membrane receptor CD71, it safely delivers iron ions to cells, providing the essential element for cell differentiation, metabolism, and proliferation. Studies have shown that all cells require transferrin for growth in serum-free media. Iron is not only a key element for maintaining normal cellular metabolism but also a cofactor for various enzymes such as RNA polymerase and DNA synthase, and is a critical component of hemoglobin.

This product is derived from healthy bovine plasma and is supplied as Holo-transferrin (iron-saturated form), where each transferrin molecule binds two ferric ions (Fe^{3+}) via its C-lobe and N-lobe. Bovine transferrin exists in two molecular weight isoforms (74 kDa and 78 kDa). Upon releasing iron, saturated transferrin converts to apo-transferrin, which can subsequently rebind iron, forming a recycling process (each transferrin molecule has a half-life of approximately 8 days and can undergo up to 100 cycles of iron transport). Compared to the Apo form, the Holo form has been proven to be the most effective for promoting cell growth. This product is a lyophilized powder of cell culture grade, appearing as a red to reddish-brown lyophilized powder or cake.

Before use, dissolve the lyophilized powder in PBS or a suitable solvent at room temperature to prepare a 0.5–2.0 mg/mL stock solution, then filter-sterilize using a 0.22 µm sterile membrane filter. The stock solution can be

stored under sterile conditions at 2–8°C for 30 days.



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