

Basic Information

Product Name	Anti-Transferrin/TF Antibody (Clone#7I11B10)
Gene Name	TF
Source	Mouse
Isotype	IgG2b
Species Reactivity	human, mouse, rat
Tested Application	WB
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg BSA and 50% glycerol.
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Transferrin (20-49aa VPDKTVRWCAVSEHEATKCQSFDRDHMKSVI), different from the related mouse and rat sequences by five amino acids.
concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	77KD
Dilution Ratios	Western blot (WB):1:500-2000

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

Transferrins are iron-binding blood plasma glycoproteins that control the level of free iron in biological fluids. In humans, it is encoded by the TF gene. Transferrin consists of a polypeptide chain containing 679 amino acids in humans. The protein is composed of alpha helices and beta sheets to form two domains. The N- and C- terminal sequences are represented by globular lobes and between the two lobes is an iron-binding site. Transferrin is a glycoprotein that binds iron very tightly but reversibly. Although iron bound to transferrin is less than 0.1% (4 mg) of the total body iron, it is the most important iron pool, with the highest rate of turnover (25 mg/24 h). And Transferrin has a molecular weight of around 80 kDa and contains 2 specific high-affinity Fe(III) binding sites. The affinity of transferrin for Fe(III) is extremely high (10²³ M⁻¹ at pH 7.4) but decreases progressively with decreasing pH below neutrality.

Selected Validation Data

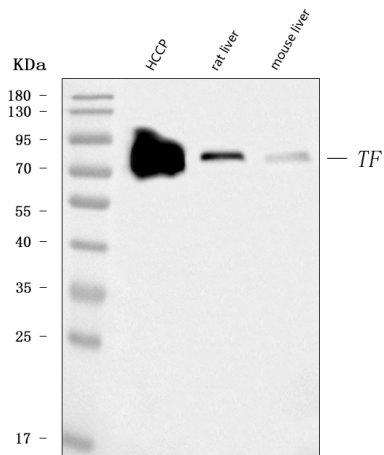


Figure 1. Western blot analysis of anti- Transferrin/TF antibody (M00094-5). The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: human hepatocellular carcinoma paracancerous tissue (HCCP) lysates,

Lane 2: rat liver tissue lysates,

Lane 3: mouse liver tissue lysates.

Use mouse anti- Transferrin/TF 1:1000, probed with a goat anti-mouse IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001). A specific band was detected for Transferrin/TF at approximately 77KD. The expected band size for Transferrin/TF is at 77KD.