

## Anti-Transferrin/TF Antibody Picoband® (monoclonal, 7I11B10)

Catalog Number: M00094-5

### About TF

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<sup>-1</sup> at pH 7.4) but decreases progressively with decreasing pH below neutrality.

### Overview

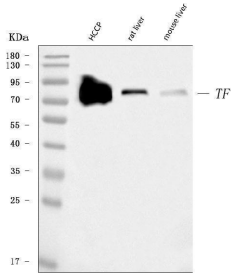
Product Name	Anti-Transferrin/TF Antibody Picoband® (monoclonal, 7I11B10)
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Transferrin/TF Antibody Picoband® (monoclonal, 7I11B10) catalog # M00094-5. Tested in WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	WB
Clonality	Monoclonal 7I11B10
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freezing and thawing.
Host	Mouse
Uniprot ID	P02787

### Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Transferrin, different from the related mouse and rat sequences by five amino acids.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	IgG2b

Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat

## Anti-Transferrin/TF Antibody Picoband® (monoclonal, 7I11B10) (M00094-5) Images



Western blot analysis of Transferrin/TF using anti-Transferrin/TF antibody (M00094-5). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug 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. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Transferrin/TF antigen affinity purified monoclonal antibody (Catalog # M00094-5) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Transferrin/TF at approximately 77 kDa. The expected band size for Transferrin/TF is at 77 kDa.

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