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

Catalog # ABO16620

Specification

Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Product Information

Application	**WB**
Primary Accession	P02787
Host	**Mouse**
Isotype	**IgG2b**
Reactivity	**Rat, Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) . Tested in WB applications. This antibody reacts with Human, Mouse, Rat.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Additional Information

Gene ID 7018

Other Names
Serotransferrin, Transferrin, Beta-1 metal-binding globulin, Siderophilin, TF (HGNC:11740)

Calculated MW
77 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human, Mouse, Rat

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

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.

Purification
Immunogen affinity purified.

Storage	**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.**

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Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Protein Information

Name TF (HGNC:11740)

Function
Transferrins are iron binding transport proteins which can bind two Fe(3+) ions in association with the binding of an anion, usually bicarbonate. It is responsible for the transport of iron from sites of absorption and heme degradation to those of storage and utilization. Serum transferrin may also have a further role in stimulating cell proliferation. (Microbial infection) Serves as an iron source for parasite T.brucei (strain 427), which capture TF via its own transferrin receptor ESAG6:ESAG7 and extract its iron for its own use.

Cellular Location
Secreted.

Tissue Location
Expressed by the liver and secreted in plasma.

Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Images

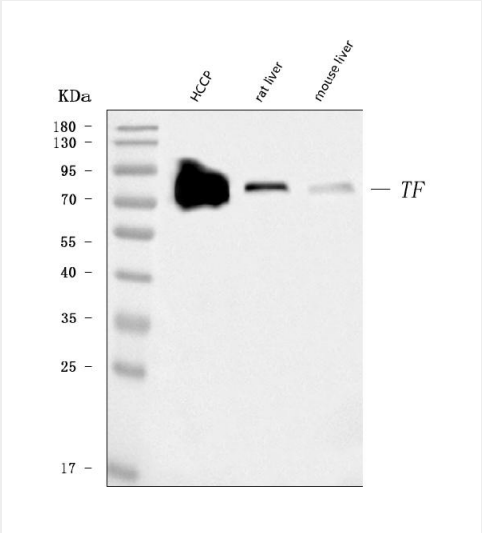

Figure 1. Western blot analysis of Transferrin/TF using anti-Transferrin/TF antibody (M00094-5). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving

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 µg/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.

Anti-Transferrin/TF Antibody Picoband™ (monoclonal, 7I11B10) - Background

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 M1 at pH 7.4) but decreases progressively with decreasing pH below neutrality.