

## Anti-CD18 ITGB2 Antibody Picoband™ (monoclonal, 1A3/2A10)

Catalog Number: M00458-1

### About ITGB2

ITGB2 (INTEGRIN, BETA-2), also known as CD18, is a protein that in humans is encoded by the ITGB2 gene. ITGB2 is an integrin protein that belongs to the class of cell membrane glycoproteins. The beta-2 integrin chain gene is designated ITGB2 and the leukocyte antigen has been designated CD18. The ITGB2 gene is mapped to 21q22.3. The expression of CD18 is increased in lymphoblastoid cells from persons with Down syndrome, consistent with the location of the gene on chromosome 21. In humans lack of ITGB2 causes Leukocyte Adhesion Deficiency, a disease defined by a lack of leukocyte extravasation from blood into tissues. Although ITGB2 is expressed on the cell surface at normal levels and is capable of function following extracellular stimulation, it could not be activated via the 'inside-out' signaling pathways.

### Overview

Product Name	Anti-CD18 ITGB2 Antibody Picoband™ (monoclonal, 1A3/2A10)
Reactive Species	Human
Description	Boster Bio Anti-CD18 ITGB2 Antibody Picoband™ (monoclonal, 1A3/2A10) catalog # M00458-1. Tested in IHC, WB applications. This antibody reacts with Human.
Application	IHC, WB
Clonality	Monoclonal 1A3/2A10
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage Instructions	Store 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 freeze-thaw cycles.
Host	Mouse
Uniprot ID	P05107

### Technical Details

Immunogen	E.coli-derived human CD18 recombinant protein (Position: Q404-S769). Human CD18 shares 76% amino acid (aa) sequence identity with mouse CD18.
Predicted Reactive Species	Hepatitis Virus
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml</p>

## Anti-CD18 ITGB2 Antibody Picoband™ (monoclonal, 1A3/2A10) (M00458-1) Images

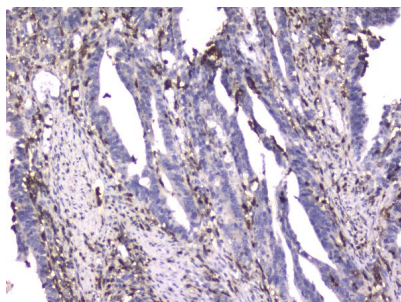


Figure 1. IHC analysis of CD18 using anti-CD18 antibody (M00458-1).

CD18 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml mouse anti-CD18 Antibody (M00458-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

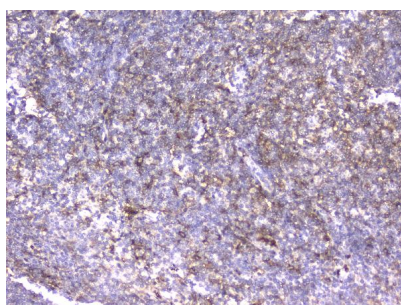


Figure 2. IHC analysis of CD18 using anti-CD18 antibody (M00458-1).

CD18 was detected in paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2ug/ml rabbit anti-CD18 Antibody (M00458-1) overnight at 4°C. Biotinylated goat anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

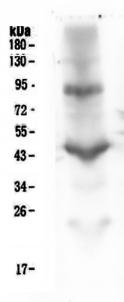


Figure 3. Western blot analysis of CD18 using anti-CD18 antibody (M00458-1).

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 50ug of sample under reducing conditions.

Lane 1: human placenta tissue lysate.

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-CD18 antigen affinity purified monoclonal antibody (Catalog # M00458-1) 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.

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