

Anti-RANKL Monoclonal Antibody (12A668)

Catalog Number: M00363-1

Introduction

CD11b is a 165-kDa adhesion glycoprotein that associates with the 95-kDa integrin beta2 (CD18) to form the CD11b/CD18 complex, also known as Mac-1 or CR3. CD11b is expressed on activated lymphocytes, monocytes, granulocytes, and a subset of NK cells. CD11b functions in cell-cell and cell-substrate interactions and is a receptor for iC3b, CD54 (ICAM-1), CD102 (ICAM-2) and CD50 (ICAM-3). The OKM1 antibody directed against the CD11b antigen on human monocytes and granulocytes.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development by CapricoBio or are reported in the literature.

Application Information

Each lot of this antibody has been quality control tested by flow cytometric analysis of human PBMCs. For flow cytometric staining, the recommended dose of this antibody is 0.5ug per 1x10⁶ cells in 100ul of staining volume followed by any fluorochrome conjugated streptavidin. It is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

About Tnfsf11

Integrin alpha 1 (ITGA1) chain associates with the beta 1 (ITGB1) chain to form a heterodimer that functions as a dual laminin/collagen receptor in neural cells and hematopoietic cells. ITGA1 has a 206-amino acid I domain in its N-terminal half, followed by 3 divalent cation-binding sites and a C-terminal transmembrane domain with a short cytoplasmic tail. It also has 28 potential N-glycosylation sites. Human ITGA1 was expressed in a mouse fibroblast cell line as a 180-kD protein. ITGA1 is involved in the early remodeling of osteoarthritic cartilage and plays an essential role in the regulation of mesenchymal stem cell proliferation and cartilage production. It also plays an essential role in the regulation of MSC proliferation and cartilage production.

Overview

Product Name	Anti-RANKL Monoclonal Antibody (12A668)
Reactive Species	Human, Mouse
Description	Boster Bio Anti-RANKL Monoclonal Antibody (12A668) catalog # M00363-1. Tested in IHC, WB applications. This antibody reacts with Human, Mouse.
Conjugate	Biotin
Application	IHC, WB
Clonality	Monoclonal 12A668
Formulation	Liquid. In PBS containing 0.05% BSA and 0.05% sodium azide.
Storage Instructions	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Host	Mouse
Uniprot ID	O35235

Technical Details

Immunogen	Recombinant mouse RANKL (aa 1-317) .
Predicted Reactive Species	Bovine, Canine, Chicken, Primate, Sheep, Xenopus, Zebrafish
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross reactivity with other proteins.
Isotype	IgG2b,k
Form	Liquid. In PBS containing 0.05% BSA and 0.05% sodium azide.
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	Protein G-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>Immunohistochemistry (paraffin sections, 5µg/ml)</p> <p>Western Blot (1-2µg/ml)</p> <p>Suggested dilutions/conditions may not be available for all applications.</p> <p>Optimal conditions must be determined individually for each application.</p>

Anti-RANKL Monoclonal Antibody (12A668) (M00363-1) Images

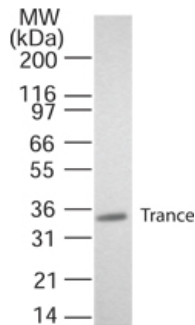


Figure 1. Western blot analysis of Tnfsf11 using anti-Tnfsf11 antibody (M00363-1).

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.

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 rabbit anti-Tnfsf11 antigen affinity purified polyclonal antibody (Catalog # M00363-1) 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 # SA1021) with Tanon 5200 system. A specific band was detected for Tnfsf11.

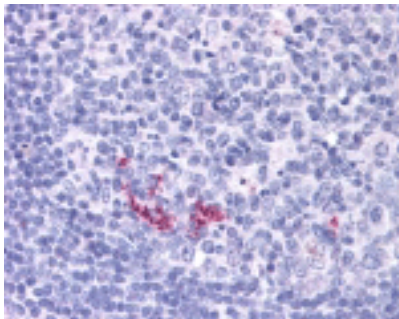


Figure 2. IHC analysis of Tnfsf11 using anti-Tnfsf11 antibody (M00363-1).

Tnfsf11 was detected in paraffin-embedded section. 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 1ug/ml rabbit anti-Tnfsf11 Antibody (M00363-1) overnight at 4°C. Biotinylated goat anti Mouse IgG antibody 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.

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