

Anti-ATP1 alpha1/Na+K+ ATPase1 Antibody

Catalog Number: A00956-1

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 Atp1a1

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

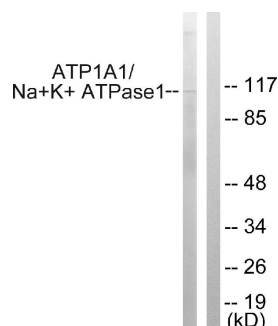
Product Name	Anti-ATP1 alpha1/Na+K+ ATPase1 Antibody
Reactive Species	Rat
Description	Boster Bio Anti-ATP1 alpha1/Na+K+ ATPase1 Antibody (Catalog# A00956-1). Tested in WB, IF, ICC, ELISA applications. This antibody reacts with Rat.
Conjugate	Biotin
Application	ELISA, IF, ICC, WB
Clonality	Polyclonal 7A7
Formulation	PBS containing 50% glycerol, 0.5% BSA and 0.02% 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	Rabbit
Uniprot ID	P06685

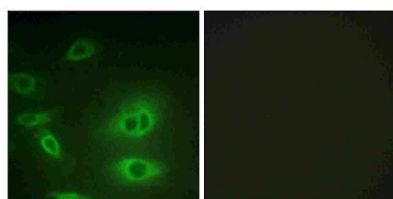
Technical Details

Immunogen	A peptide derived from rat ATP1 alpha1/Na+K+ ATPase1. Immunogen sequence location: 15-64
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	Rabbit IgG
Form	Liquid
Concentration	0.5-1mg/ml, actual concentration vary by lot. Use suggested dilution ratio to decide dilution procedure.
Purification	The antibody was purified from rabbit antiserum by affinity-chromatography using immunogen.
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western Blot, 1:500 - 1:2000 Immunofluorescence, 1:200 - 1:1000 ELISA, 1:40000 Not yet tested in other applications.

Anti-ATP1 alpha1/Na+K+ ATPase1 Antibody (A00956-1) Images



Western blot analysis of lysates from HeLa cells, using ATP1 alpha1/Na+K+ ATPase1 Antibody. The lane on the right is blocked with the synthesized peptide.



Immunofluorescence analysis of HeLa cells, using ATP1 alpha1/Na+K+ ATPase1 Antibody. The picture on the right is blocked with the synthesized peptide.

1 Publications Citing This Product

1. PubMed ID: 32922293, Li H, Ma Z, Zhai Y, Lv C, Yuan P, Zhu F, Wei L, Li Q, Qi X. Trimetazidine Ameliorates Myocardial Metabolic Remodeling in Isoproterenol-Induced Rats Through Regulating Ketone Body Metabolism via Activating AMPK and PPAR alpha. Front Pharmacol. 2020 Aug 14;11:1255. doi:10.

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