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antibody and ELISA experts

BOSTER BIOLOGICAL TECHNOLOGY
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Anti-PAK4 Antibody

Catalog Number: A01723

Introduction

CD3epsilon is a 20kD chain, which together with CD3lambda, CD3delta, and CD3zeta, and a T cell receptor (alpha/beta or gamma/) form the CD3/T-cell receptor complex. It is a specific marker for T lymphocytes, NK T cells, and some thymocytes. Crosslinking of TCR initiates an intracellular signaling cascade resulting in cellular activation and proliferation. The OKT3 antibody has been reported to have potent immunosuppressive properties in vivo and has been proved effective in the treatment of renal, heart, and liver allograft rejection.

This antibody is routinely tested by flow cytometric analysis. Flow cytometry and other applications were tested during antibody development 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 use of this antibody is ≤ 0.5µg per 1x106 cells in 100µl of staining volume followed by a secondary florescent conjugated anti-mouse antibody. However, it is strongly suggested that the antibody reactivity be empirically titrated for optimal performance in the application of interest.

About PAK4

The p21-activated kinases (PAKs) are serine-threonine kinases that bind to the active forms of Cdc42 and Rac. They are divided into two groups, the first of which include PAK1, 2 and 3, and can be activated by Cdc42/Rac binding. Group 1 PAKs contain an autoinhibitory domain whose activity is regulated by Cdc42/Rac binding. The group 1 PAKs are known to be involved in cellular processes such as gene transcription, apoptosis, and cell morphology and motility. Much less is known about the second group, which includes PAK4, 5 and 6. These proteins are not activated by Cdc42/Rac binding. PAK4 was initially identified as a novel effector of Cdc42Hs. Co-expression of PAK4 and Cdc42Hs resulted in induction of filopodia and actin polymerization, showing that it is involved in cytoskeletal reorganization. Other experiments have shown PAK4 to be essential for embryonic viability and proper neuronal development. PAK4 has also been implicated in anchorage-independent growth of tumor cells and is required for activation of several cancer prosurvival pathways.

Overview

Product Name	Anti-PAK4 Antibody
Reactive Species	Human
Description	Boster Bio Anti-PAK4 Antibody (Catalog # A01723). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human.
Conjugate	Biotin
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal SK7
Formulation	PAK4 Antibody is supplied in PBS containing 0.02% sodium azide.

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Storage Instructions	PAK4 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze-thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Host	Rabbit
Uniprot ID	O96013

Technical Details

Immunogen	PAK4 antibody was raised against a 13 amino acid synthetic peptide from near the center of human PAK4. The immunogen is located within amino acids 210 - 260 of PAK4.
Predicted Reactive Species	Bovine, Chicken, Pig, Rat, Sheep
Cross Reactivity	PAK4 antibody is predicted to not cross-react with other PAK family proteins.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	PAK4 Antibody is affinity chromatography purified via peptide column.
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: PAK4 antibody can be used for the detection of PAK4 by Western blot at 1 - 2 ug/mL. Antibody can also be used for immunohistochemistry starting at 10 ug/mL. For immunofluorescence start at 20 ug/mL. Antibody validated: Western Blot in human samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested. Optimal dilutions for each application should be determined by the researcher.

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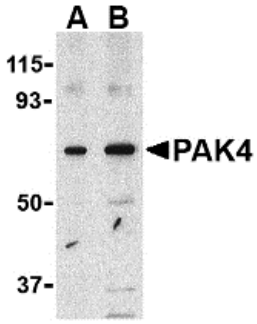
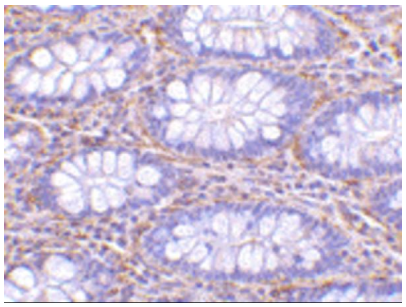
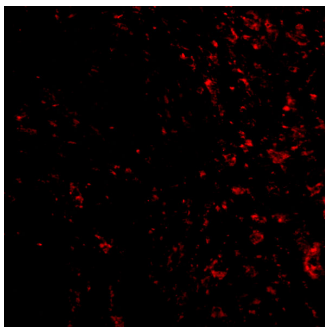
Anti-PAK4 Antibody (A01723) Images



Western blot analysis of PAK4 in SW480 lysate with PAK4 antibody at (A) 1 and (B) 2 ug/mL.



Immunohistochemistry of PAK4 in human colon tissue with PAK4 antibody at 10 ug/mL.



Immunofluorescence of PAK4 in Human Colon tissue with PAK4 antibody at 20 ug/mL.

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