

PAK4 Antibody

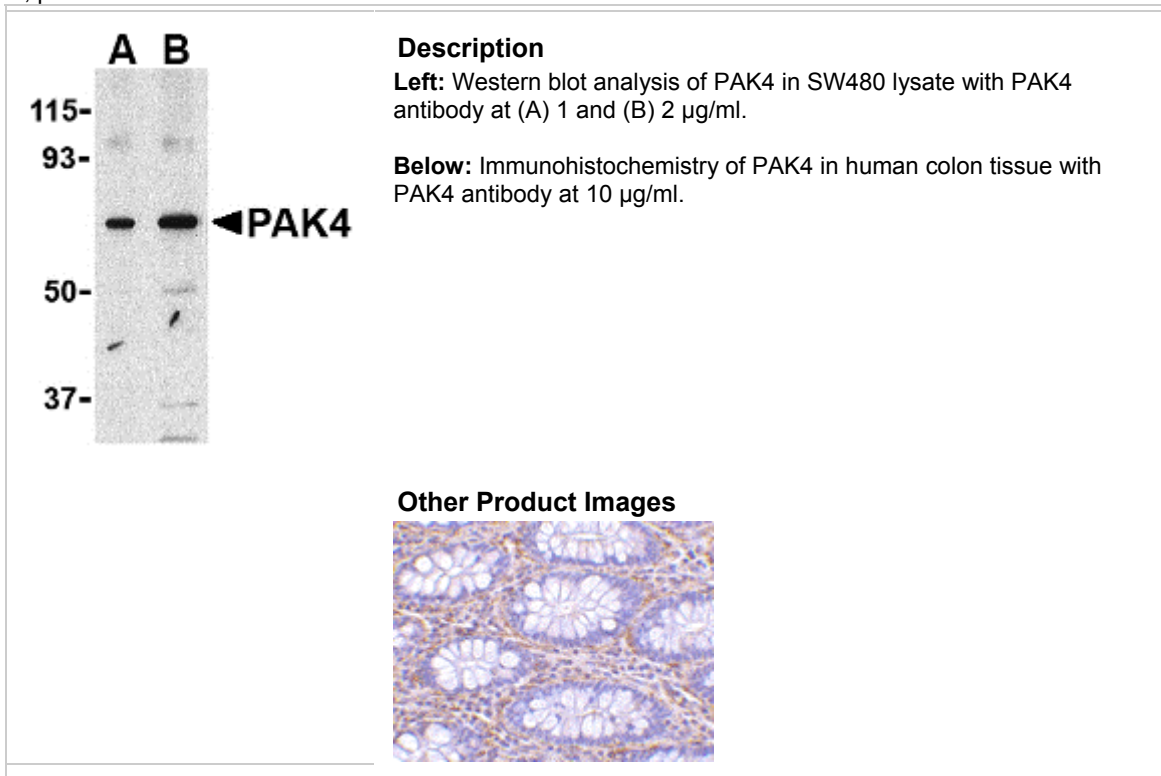
SIG-3077

Background

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.

Additional Names

PAK4, p21-activated kinase 4



Source

PAK4 antibody was raised against a 13 amino acid peptide from near the center of human PAK4.

Purification

Affinity chromatography purified via peptide column

Clonality / Clone

This is a polyclonal antibody.

Host

PAK4 antibody was raised in rabbit.

Please use anti-rabbit secondary antibodies.

Application

PAK4 antibody can be used for the detection of PAK4 by Western blot at 1 - 2 µg/ml.

Tested Application

E, WB, IHC

Buffer

Antibody is supplied in PBS containing 0.02% sodium azide.

Blocking Peptide

PAK4 Peptide (contact Zyagen for availability)

Storage

PAK4 antibody can be stored at 4°C, stable for one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Positive Control

1. SW480 Cell Lysate (contact Zyagen for availability)
2. Human Colon Tissue Lysate (contact Zyagen for availability)

Species Reactivity

H

Protein GI Number

5031975

Protein Accession Number

NP_005875

Short Description

a p21-activated kinase

References

1. Jaffer ZM and Chernoff J. p21-activated kinases: three more join the Pak. *Int. J. Biochem. Cell Biol.* 2002; 34:713-7.
2. Abo A, Qu J, Cammarano MS, et al. PAK4, a novel effector for Cdc42Hs, is implicated in the reorganization of the actin cytoskeleton and in the formation of filopodia. *EMBO J.* 1998; 17:6527-40.

3. Cotteret S, Jaffer ZM, Beeser A, et al. p21-activated kinase 5 (Pak5) localizes to mitochondria and inhibits apoptosis by phosphorylated BAD. *Mol. Cell. Biol.* 2003; 23:5526-39.