

**PAK $\gamma$  Polyclonal Antibody**

<b>Catalog No :</b>	YT3581
<b>Reactivity :</b>	Human;Mouse;Rat
<b>Applications :</b>	WB;IHC;IF;ELISA
<b>Target :</b>	PAK2
<b>Fields :</b>	>>MAPK signaling pathway;>>ErbB signaling pathway;>>Ras signaling pathway;>>Axon guidance;>>Focal adhesion;>>T cell receptor signaling pathway;>>Regulation of actin cytoskeleton;>>Pathogenic Escherichia coli infection;>>Human immunodeficiency virus 1 infection;>>Renal cell carcinoma
<b>Gene Name :</b>	PAK2
<b>Protein Name :</b>	Serine/threonine-protein kinase PAK 2
<b>Human Gene Id :</b>	5062
<b>Human Swiss Prot No :</b>	Q13177
<b>Mouse Gene Id :</b>	224105
<b>Mouse Swiss Prot No :</b>	Q8CIN4
<b>Rat Gene Id :</b>	1.00911e+008
<b>Rat Swiss Prot No :</b>	Q64303
<b>Immunogen :</b>	The antiserum was produced against synthesized peptide derived from human PAK2. AA range:5-54
<b>Specificity :</b>	PAK $\gamma$ Polyclonal Antibody detects endogenous levels of PAK $\gamma$ protein.
<b>Formulation :</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source :</b>	Polyclonal, Rabbit,IgG

**Dilution :** WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:5000.. IF 1:50-200

**Purification :** The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

**Concentration :** 1 mg/ml

**Storage Stability :** -15°C to -25°C/1 year(Do not lower than -25°C)

**Observed Band :** 60kD

**Cell Pathway :** MAPK\_ERK\_Growth;MAPK\_G\_Protein;ErbB\_HER;Axon guidance;Focal adhesion;T\_Cell\_Receptor;Regulates Actin and Cytoskeleton;Renal cell carcinoma;

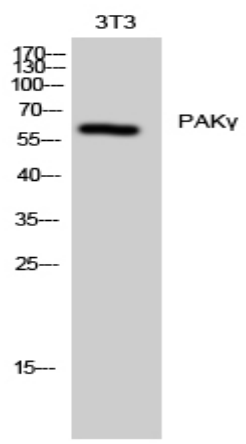
**Background :** The p21 activated kinases (PAK) are critical effectors that link Rho GTPases to cytoskeleton reorganization and nuclear signaling. The PAK proteins are a family of serine/threonine kinases that serve as targets for the small GTP binding proteins, CDC42 and RAC1, and have been implicated in a wide range of biological activities. The protein encoded by this gene is activated by proteolytic cleavage during caspase-mediated apoptosis, and may play a role in regulating the apoptotic events in the dying cell. [provided by RefSeq, Jul 2008],

**Function :** catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme regulation:Activated by binding small G proteins. Binding of GTP-bound CDC42 or RAC1 to the autoregulatory region releases monomers from the autoinhibited dimer, enables phosphorylation of Thr-402 and allows the kinase domain to adopt an active structure (By similarity). Following caspase cleavage, autophosphorylated PAK-2p34 is constitutively active.,function:The activated kinase acts on a variety of targets. Phosphorylates ribosomal protein S6, histone H4 and myelin basic protein. Full length PAK 2 stimulates cell survival and cell growth. The process is, at least in part, mediated by phosphorylation and inhibition of pro-apoptotic BAD. Caspase-activated PAK-2p34 is involved in cell death response, probably involving the JNK signaling pathway. Cleaved PAK-2p34 seems to have a higher activity than the CDC42-activated for

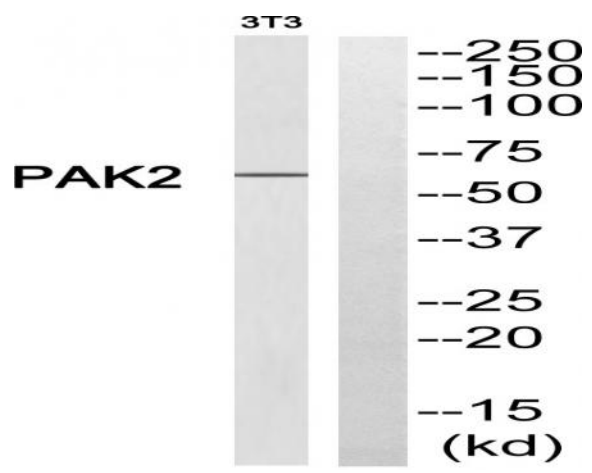
**Subcellular Location :** [Serine/threonine-protein kinase PAK 2]: Cytoplasm. MYO18A mediates the cellular distribution of the PAK2-ARHGEF7-GIT1 complex to the inner surface of the cell membrane.; [PAK-2p34]: Nucleus. Cytoplasm, perinuclear region. Membrane; Lipid-anchor. Interaction with ARHGAP10 probably changes PAK-2p34 location to cytoplasmic perinuclear region. Myristoylation changes PAK-2p34 location to the membrane.

**Expression :** Ubiquitously expressed. Higher levels seen in skeletal muscle, ovary, thymus and spleen.

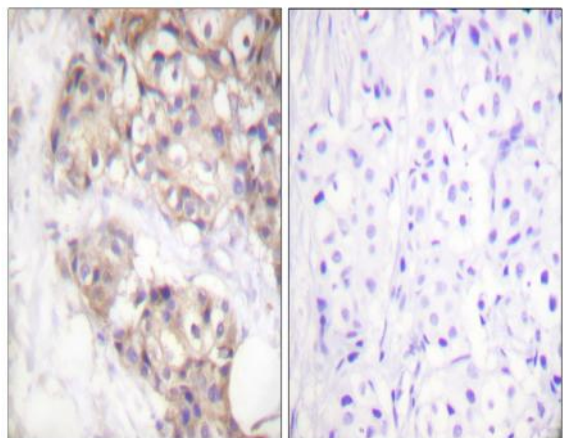
**Products Images**



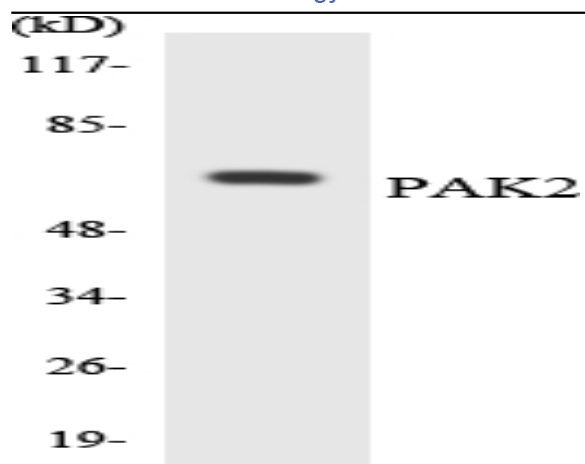
Western Blot analysis of 3T3 cells using PAK $\gamma$  Polyclonal Antibody



Western blot analysis of PAK2 Antibody. The lane on the right is blocked with the PAK2 peptide.



Immunohistochemistry analysis of paraffin-embedded human brain, using PAK2 Antibody. The lane on the right is blocked with the PAK2 peptide.



Western blot analysis of the lysates from COLO205 cells using PAK2 antibody.