

## PKD2 (phospho-S876) polyclonal antibody

Catalog: BS4351

Host: Rabbit

Reactivity: Human

### BackGround:

Protein kinase D2 (PKD2) is one of three members of the protein kinase D family, including PKD1/PKC $\mu$  and PKD3/PKC $\gamma$ , that belong to the calcium/calmodulin superfamily of serine/threonine protein kinases. PKDs contain a conserved, carboxy-terminal catalytic domain, an amino-terminal regulatory region hallmarked by a PH domain that coordinates subcellular localization, and two zinc-finger/C1 lipid-binding domains that mediate activation of the enzyme in response to diacylglycerol (DAG) or phorbol ester. In addition to lipid-mediated activation, PKD catalytic activity can also be stimulated via phosphorylation of critical serine residues within the activation loop of the enzyme. Novel PKCs, such as PKC $\eta$  and PKC $\epsilon$ , have been shown to phosphorylate PKD1 at Ser744 and Ser748 (Ser706 and Ser710 in human PKD2), resulting in alleviation of autoinhibition of the enzyme mediated by PH domain interactions with the catalytic domain. Phosphorylation and activation of PKD isoforms has also been described for other upstream kinases. For example, casein kinase 2 (CK2) has been shown to phosphorylate PKD2 at Ser244, which promotes nuclear accumulation of PKD2, phosphorylation of HDAC7, and expression of Nur77. Although only a handful of PKD2 effectors have been identified, PKD2 has been implicated in regulating an array of cellular events, including cell survival, development, growth, migration, and transformation. PKD2-mediated phosphorylation of at least one known substrate, phosphatidylinositol 4-kinase type III $\beta$  (PI4KIII $\beta$ ), also implicates PKD2 in the formation and regulation of exocytotic transport vesicles from the trans Golgi network.

### Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 105 kDa

### Swiss-Prot:

Q9BZL6

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB: 1:500~1:1000

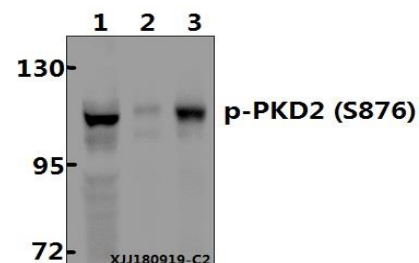
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

### Specificity:

PKD2 (phospho-S876) polyclonal antibody detects endogenous levels of PKD2 protein only when phosphorylated at Ser876.

### DATA:



Western blot (WB) analysis of PKD2 (phospho-S876) polyclonal antibody at 1:500 dilution

Lane1:DLD whole cell lysate(40  $\mu$ g)

Lane2:MG63 whole cell lysate(40  $\mu$ g)

Lane3:COS-7 whole cell lysate(40  $\mu$ g)

### Note:

For research use only, not for use in diagnostic procedure.

### Bioworld Technology, Inc.

Add: 1660 South Highway 100, Suite 500 St. Louis Park, MN 55416, USA.

Email: [info@bioworld.com](mailto:info@bioworld.com)

Tel: 6123263284

Fax: 6122933841

### Bioworld technology, co. Ltd.

Add: No 9, weidi road Qixia District Nanjing, 210046, P. R. China.

Email: [info@biogot.com](mailto:info@biogot.com)

Tel: 0086-025-68037686

Fax: 0086-025-68035151



## PRODUCT DATA SHEET

Bioworld Technology, Inc.

---

---

### **Bioworld Technology, Inc.**

**Add:** 1660 South Highway 100, Suite 500 St. Louis Park,  
MN 55416, USA.

**Email:** [info@bioworld.com](mailto:info@bioworld.com)

**Tel:** 6123263284

**Fax:** 6122933841

### **Bioworld technology, co. Ltd.**

**Add:** No 9, weidi road Qixia District Nanjing, 210046,  
P. R. China.

**Email:** [info@biogot.com](mailto:info@biogot.com)

**Tel:** 0086-025-68037686

**Fax:** 0086-025-68035151