

## PKD2 (phospho Ser876) Polyclonal Antibody

| Catalog No :             | YP0341   |
|--------------------------|--|
| Reactivity :             | Human;Mouse;Rat  |
| Applications :           | WB;IHC;IF;ELISA  |
| Target :                 | PKD2   |
| Fields :                 | >>Rap1 signaling pathway;>>Aldosterone synthesis and secretion;>>Chemical carcinogenesis - reactive oxygen species                         |
| Gene Name :              | PRKD2  |
| Protein Name :           | Serine/threonine-protein kinase D2   |
| Human Gene Id :          | 25865  |
| Human Swiss Prot<br>No : | Q9BZL6   |
| Mouse Gene Id :          | 101540   |
| Mouse Swiss Prot<br>No : | Q8BZ03   |
| Rat Gene Id :            | 292658   |
| Rat Swiss Prot No :      | Q5XIS9   |
| Immunogen :              | The antiserum was produced against synthesized peptide derived from human PKD2 around the phosphorylation site of Ser876. AA range:829-878 |
| Specificity :            | Phospho-PKD2 (S876) Polyclonal Antibody detects endogenous levels of PKD2 protein only when phosphorylated at S876.                        |
| Formulation :            | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.  |
| Source :                 | Polyclonal, Rabbit,IgG   |
| Dilution :               | WB 1:500 - 1:2000. IHC 1:100 - 1:300. ELISA: 1:40000 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 :           | 96kD   |
| Cell Pathway :            | Regulation_Microtubule; Regulation of Actin Dynamics; Stem cell pathway;<br>Insulin Receptor; B Cell Receptor; AMPK  |
| Background :              | The protein encoded by this gene belongs to the protein kinase D (PKD) family<br>of serine/threonine protein kinases. This kinase can be activated by phorbol<br>esters as well as by gastrin via the cholecystokinin B receptor (CCKBR) in gastric<br>cancer cells. It can bind to diacylglycerol (DAG) in the trans-Golgi network (TGN)<br>and may regulate basolateral membrane protein exit from TGN. Alternative<br>splicing results in multiple transcript variants encoding different isoforms.<br>[provided by RefSeq, Jul 2008],  |
| Function :                | catalytic activity:ATP + a protein = ADP + a phosphoprotein.,enzyme<br>regulation:Activated by diacylglycerol and phorbol esters.,function:Calcium-<br>independent, phospholipid-dependent, serine- and threonine-specific protein<br>kinase.,PTM:Autophosphorylated. Phorbol esters stimulates autophosphorylation.<br>Phosphorylation of Ser-876 correlates with the activation status of the<br>kinase.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to<br>the protein kinase superfamily. CAMK Ser/Thr protein kinase family. PKD<br>subfamily.,similarity:Contains 1 PH domain.,similarity:Contains 1 protein kinase<br>domain.,similarity:Contains 2 phorbol-ester/DAG-type zinc fingers.,tissue<br>specificity:Widely expressed., |
| Subcellular<br>Location : | Cytoplasm . Cell membrane . Nucleus . Golgi apparatus, trans-Golgi network .<br>Translocation to the cell membrane is required for kinase activation. Accumulates<br>in the nucleus upon CK1-mediated phosphorylation after activation of G-protein-<br>coupled receptors. Nuclear accumulation is regulated by blocking nuclear export<br>of active PRKD2 rather than by increasing import  |
| Expression :              | Widely expressed.  |

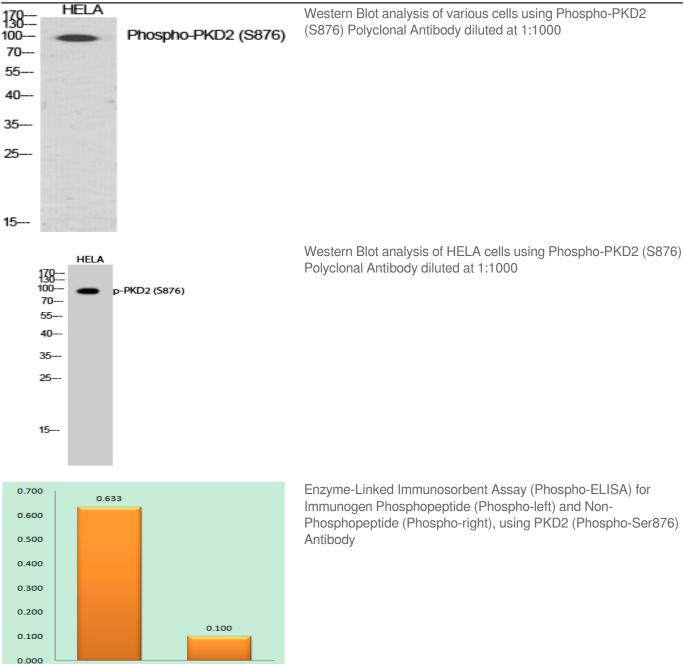
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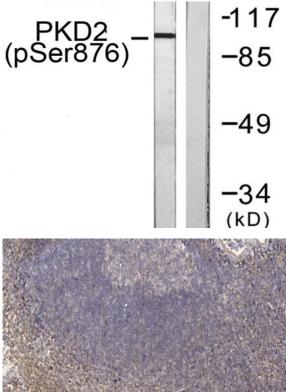
phosphopeptide

OD 450nm Reading

non-phosphopeptide







Western blot analysis of lysates from NIH/3T3 cells treated with PMA 250ng/ml 15', using PKD2 (Phospho-Ser876) Antibody. The lane on the right is blocked with the phospho peptide.

Immunohistochemical analysis of paraffin-embedded human tonsil. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).