

## Anti-PDK2 Antibody Picoband®

Catalog Number: A03261

### About PDK2

PDK2 (Pyruvate Dehydrogenase Kinase Isoenzyme 2), is an enzyme that in humans is encoded by the PDK2 gene. This gene encodes a member of the pyruvate dehydrogenase kinase family. The encoded protein phosphorylates pyruvate dehydrogenase, down-regulating the activity of the mitochondrial pyruvate dehydrogenase complex. Overexpression of this gene may play a role in both cancer and diabetes. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene.

### Overview

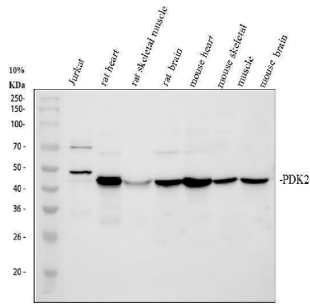
|                      |   |
|----------------------|---|
| Product Name         | Anti-PDK2 Antibody Picoband®  |
| Reactive Species     | Human, Mouse, Rat   |
| Description          | Boster Bio Anti-PDK2 Antibody Picoband® catalog # A03261. Tested in ELISA, Flow Cytometry, IF, ICC/IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance. |
| Application          | ELISA, Flow Cytometry, IF, IHC, ICC, WB   |
| Clonality            | Polyclonal  |
| Formulation          | Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .  |
| Storage Instructions | Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.   |
| Host                 | Rabbit  |
| Uniprot ID           | Q15119  |

### Technical Details

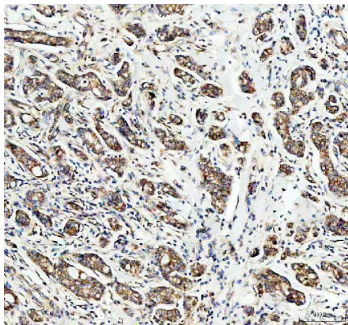
|                               |   |
|-------------------------------|---|
| Immunogen                     | E. coli-derived human PDK2 recombinant protein (Position: V81-D177).                            |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot. |
| Cross Reactivity              | No cross-reactivity with other proteins.  |
| Isotype                       | Rabbit IgG  |
| Form                          | Lyophilized   |
| Concentration                 | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                       |

|                     |   |
|---------------------|---|
| Purification        | Immunogen affinity purified.  |
| Suggested Dilutions | Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat<br>Immunohistochemistry(Paraffin-embedded Section), 2-5ug/ml, Human<br>Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human<br>Immunofluorescence, 5 ug/ml, Human<br>Flow Cytometry(Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human<br>ELISA, 0.1-0.5ug/ml, - |

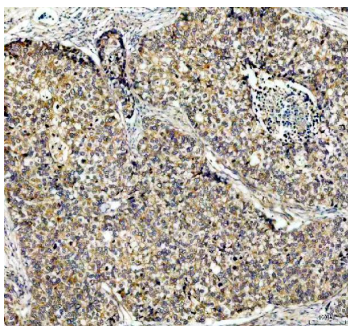
## Anti-PDK2 Antibody Picoband® (A03261) Images



Western blot analysis of PDK2 using anti-PDK2 antibody (A03261). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human Jurkat whole cell lysates, Lane 2: rat heart tissue lysates, Lane 3: rat skeletal muscle tissue lysates, Lane 4: rat brain tissue lysates, Lane 5: mouse heart tissue lysates, Lane 6: mouse skeletal muscle tissue lysates, Lane 7: mouse brain tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-PDK2 antigen affinity purified polyclonal antibody (A03261) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for PDK2 at approximately 46 kDa. The expected band size for PDK2 is at 46 kDa.

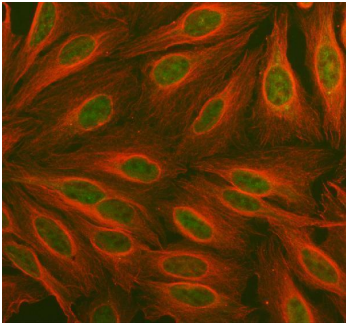


IHC analysis of PDK2 using anti-PDK2 antibody (A03261). PDK2 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PDK2 Antibody (A03261) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

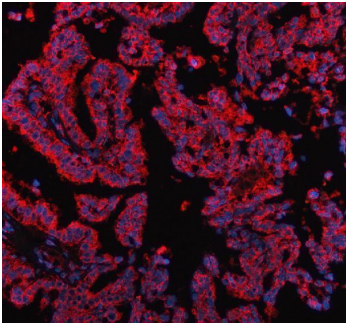


IHC analysis of PDK2 using anti-PDK2 antibody (A03261). PDK2 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PDK2 Antibody (A03261) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

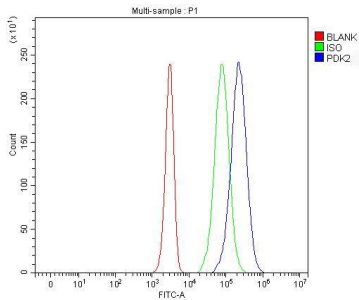
IF analysis of PDK2 using anti-PDK2 antibody (A03261) and anti-Tubulin Alpha antibody (M03989-3). PDK2 was detected in immunocytochemical section of U2OS cell. Enzyme



antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-PDK2 Antibody (A03261) and mouse anti-Tubulin Alpha antibody (M03989-3) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of PDK2 using anti-PDK2 antibody (A03261). PDK2 was detected in a paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-PDK2 Antibody (A03261) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of JK cells using anti-PDK2 antibody (A03261). Overlay histogram showing JK cells stained with A03261 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-PDK2 Antibody (A03261, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10<sup>6</sup> cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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### Anti-PDK2 Antibody

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