Product Information

Material Number: 560092
Alternate Name: PDK1 (pS241), PKB Kinase (pS241)
Size: 50 Tests
Vol. per Test: 20 µl
Clone: J666-653.44.17
Immunogen: Phosphorylated Human PDPK1 Peptide
Isotype: Mouse IgG1, κ
QC Testing: Human
Predicted Reactivity: Mouse, Rat
Storage Buffer: Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The serine/threonine kinase 3-Phosphoinositide-Dependent Protein Kinase-1 (PDPK1, also known as PDK1) contributes to the activation of many important kinases in the insulin and IGF-1 signaling pathways. It acts downstream of phosphatidylinositol 3-kinase (PI3-kinase) to phosphorylate residues in the activation loops of many cellular kinases, including protein kinase B (PKB/Akt), PKC isoforms, p70 S6 kinase, and PDPK1 itself. The autophosphorylation of PDPK1 at serine 241 (S241) has recently been suggested to play a role in the regulation of PDPK1. It has been proposed that PDPK1 activity plays a key role in the regulation of various cellular events such as cell proliferation, differentiation, and apoptosis.

The J666-653.44.17 monoclonal antibody recognizes the phosphorylated S241 in the activation loop of human PDPK1. The orthologous phosphorylation site in mouse and rat PDPK1 is S244.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

| Intracellular staining (flow cytometry) | Routinely Tested |

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Recommended Assay Procedure:
This mAb was characterized by flow cytometry (Flow) and western blot analysis (WB) using these model systems:

<table>
<thead>
<tr>
<th>Method</th>
<th>Species</th>
<th>Cells</th>
<th>Treatment</th>
<th>Fixation</th>
<th>Perm buffer</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flow</td>
<td>Human</td>
<td>Jurkat</td>
<td>Calyculin A + Okadaic Acid</td>
<td>Lyse/Fix or Cytofix</td>
<td>III</td>
<td>Up-regulation</td>
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<tr>
<td>Flow</td>
<td>Human</td>
<td>Jurkat</td>
<td>Calyculin A + Okadaic Acid</td>
<td>Lyse/Fix</td>
<td>I or II</td>
<td>Unsatisfactory</td>
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<td>Flow</td>
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<td>PBMC</td>
<td>Calyculin A + Okadaic Acid</td>
<td>Lyse/Fix</td>
<td>III</td>
<td>Up-regulation</td>
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<tr>
<td>WB</td>
<td>Human</td>
<td>Jurkat</td>
<td>Calyculin A + Okadaic Acid</td>
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Suggested Companion Products

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<th>Size</th>
<th>Clone</th>
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<tr>
<td>558049</td>
<td>Lyse/Fix Buffer 5X</td>
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<tr>
<td>558050</td>
<td>Perm Buffer III</td>
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<td>559320</td>
<td>PE Mouse IgG1, κ Isotype Control</td>
<td>100 Tests</td>
<td>MOPC-21</td>
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<td>554656</td>
<td>Stain Buffer (FBS)</td>
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<td>554657</td>
<td>Stain Buffer (BSA)</td>
<td>500 mL</td>
<td>(none)</td>
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Product Notices
1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1 × 10^6 cells in a 100-µl experimental sample (a test).
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. An isotype control should be used at the same concentration as the antibody of interest.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.

References