

### DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human PYK2/FAK2 when phosphorylated at Y402.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 592918
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human PYK2/FAK2 Y402 site Accession # Q14289
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

### APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
<b>Western Blot</b>	0.5 µg/mL	See Below
<b>Simple Western</b>	5 µg/mL	See Below

### DATA

**Western Blot**

**Detection of Human Phospho-PYK2/FAK2 (Y402) by Western Blot.** Western blot shows lysates of Raji human Burkitt's lymphoma cell line and Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) with 1 mM Pervanadate (PV) for 30 minutes and 10 µg/mL Mouse Anti-Human CD3ε Monoclonal Antibody (Catalog # MAB100) for 15 minutes. PVDF membrane was probed with 0.5 µg/mL of Mouse Anti-Human Phospho-PYK2/FAK2 (Y402) Monoclonal Antibody (Catalog # MAB6210) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF018). Specific bands were detected for Phospho-PYK2/FAK2 (Y402) at approximately 105-115 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Simple Western**

**Detection of Human Phospho-PYK2/FAK2 (Y402) by Simple Western™.** Simple Western lane view shows lysates of Raji human Burkitt's lymphoma cell line untreated (-) or treated (+) with 0.2 mg/mL Pervanadate (PV) for 30 minutes, loaded at 0.2 mg/mL. A specific band was detected for Phospho-PYK2/FAK2 (Y402) at approximately 113 kDa (as indicated) using 5 µg/mL of Mouse Anti-Human Phospho-PYK2/FAK2 (Y402) Monoclonal Antibody (Catalog # MAB6210). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

### PREPARATION AND STORAGE

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>● 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

### BACKGROUND

PYK2 (Proline-rich kinase 2; also Ptk2b, Fak2, RAFTK and CAKβ) is a 112-116 kDa member of the Fak subfamily, tyrosine protein kinase family. It is expressed in multiple cell types, including endothelial cells, vascular smooth muscle cells, megakaryocytes and neurons. PYK2 is activated by elevated intracellular Ca<sup>++</sup> and is associated with MAPK pathway activation. Human PYK2 is 1009 amino acids (aa) in length. PYK2 phosphorylation at Tyr402 is associated with enzymatic activation, intercellular localization, cell growth, cell motility, and regulating molecular associations. Over aa 390-410, human PYK2 is 100% aa identical to mouse PYK2.