

**DESCRIPTION**

<b>Specificity</b>	Detects proteins containing phosphorylated tyrosine residues. ELISA and Western blot analyses using pervanadate-treated cell lysates indicate that clone 179003 binds phospho-tyrosine in a broad manner largely independent of the surrounding amino acid sequence. No cross-reactivity with proteins or peptides containing phosphorylated serine or threonine residues is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 179003
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	KLH-coupled phospho-tyrosine synthetic peptide
<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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below
<b>Immunoprecipitation</b>	5 µg/500 µg cell lysate	A431 human epithelial carcinoma cell line, <a href="#">see our available Western blot detection antibodies</a>
<b>Simple Western</b>	50 µg/mL	See Below

**DATA**

**Western Blot**

**Detection of Phospho-Tyrosine by Western Blot.** Western blot shows lysates of A431 human epithelial carcinoma cell line untreated (-) or treated (+) with 50 µM pervanadate (PV) for 15 minutes. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Phospho-Tyrosine Monoclonal Antibody (Catalog # MAB1676), followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). Tyrosine-phosphorylated proteins were detected (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 10](#).

**Simple Western**

**Detection of Human Phospho-Tyrosine by Simple Western™.** Simple Western lane view shows lysates of HUVEC human umbilical vein endothelial cells untreated (-) or treated (+) with 50 µM Pervanadate (PV) for 15 minutes, loaded at 0.2 mg/mL. Tyrosine-phosphorylated proteins were detected (as indicated) using 50 µg/mL of Mouse Anti-Phospho-Tyrosine Monoclonal Antibody (Catalog # MAB1676). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.

**Immunocytochemistry**

**Phospho-Tyrosine in A431 Human Cell Line.** Phospho-Tyrosine was detected in immersion fixed A431 human epithelial carcinoma cell line treated with 50 ng/mL Recombinant Human EGF (left panel; Catalog # 236-EG) or untreated (right panel) using Mouse Anti-Phospho-Tyrosine Monoclonal Antibody (Catalog # MAB1676) at 10 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

**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

Tyrosine phosphorylation is considered to be one of the key steps in signal transduction and regulation of enzymatic activity. The phosphorylation of specific tyrosine residues has been shown to be a primary mechanism of signal transduction during normal cell cycle progression and oncogenic transformation. The role of tyrosine phosphorylation is a matter of active and ongoing research. Specific antibodies that recognize phosphorylated tyrosine residues are valuable to the study of tyrosine phosphorylated proteins and the biochemical pathways in which they are involved.