

**DESCRIPTION**

<b>Species Reactivity</b>	Human/Mouse
<b>Specificity</b>	Detects human and mouse ERK1 and ERK2 dually phosphorylated at T202/Y204 or T185/Y187, respectively.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1088B
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human ERK1 T202/Y204 site Accession # P27361
<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 either lyophilized or 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>	0.1 µg/mL	See Below
<b>Simple Western</b>	1 µg/mL	See Below

**DATA**

**Western Blot**

**Detection of Human Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) by Western Blot.** Western blot shows lysates of Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) with 200 nM PMA for 20 minutes. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human/Mouse Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) Monoclonal Antibody (Catalog # MAB18251) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Specific bands were detected for Phospho-ERK1 (T202/Y204) at approximately 44 kDa and Phospho-ERK2 (T185/Y187) at approximately 42 (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Western Blot**

**Detection of Mouse Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) by Western Blot.** Western blot shows lysates of NIH-3T3 mouse embryonic fibroblast cell line untreated (-) or treated (+) with 10 ng/mL Recombinant Human PDGF-BB (Catalog # 220-BB) for 5 minutes. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human/Mouse Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) Monoclonal Antibody (Catalog # MAB18251) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). Specific bands were detected for Phospho-ERK1 (T202/Y204) at approximately 44 kDa and Phospho-ERK2 (T185/Y187) at approximately 42 (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

**Simple Western**

**Detection of Human Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) by Simple Western™.** Simple Western lane view shows lysates of Jurkat human acute T cell leukemia cell line untreated (-) or treated (+) with PMA and Ionomycin, loaded at 0.2 mg/mL. Specific bands were detected for Phospho-ERK1 (T202/Y204)/ERK2 (T185/Y187) at approximately 46-49 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human/Mouse Phospho-ERK1 (ERK1 T202/Y204, ERK2 T185/Y187) Monoclonal Antibody (Catalog # MAB18251). 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**

ERK1 and ERK2 (also known as MAPK3 and MAPK1) are 44- and 42-kDa Ser/Thr kinases, respectively. They are part of the Ras-Raf-ERK signal transduction cascade often found downstream of growth factor receptor activation. ERK1 and ERK2 were initially isolated and cloned as kinases activated in response to insulin and NGF. They are expressed in most, if not all, mammalian tissues. Dual threonine and tyrosine phosphorylation activate both ERKs, at Thr202/Tyr204 for human ERK1 and Thr185/Tyr187 for human ERK2. Within the range used as an immunogen, human, mouse, and rat ERK1 share 100% amino acid sequence identity.