

**DESCRIPTION**

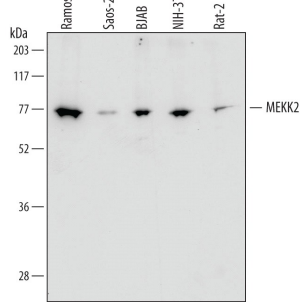
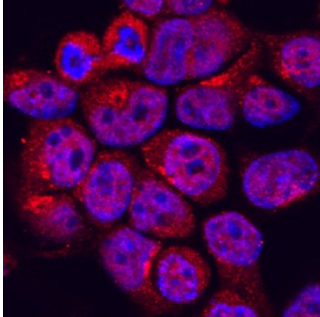
<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects recombinant human MEKK2 in direct ELISA and human, mouse, rat MEKK2 in Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human MEKK1, 3, or 4 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2A</sub> Clone # 722728
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human MEKK2 Asn42-Tyr264 Accession # Q9Y2U5
<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>	2 µg/mL	See Below
<b>Immunocytochemistry</b>	8-25 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p> 	<p><b>Detection of Human, Mouse, and Rat MEKK2 by Western Blot.</b> Western blot shows lysates of Ramos human Burkitt's lymphoma cell line, Saos-2 human osteosarcoma cell line, BJAB human Burkitt's lymphoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 2 µg/mL of Mouse Anti-Human/Mouse/Rat MEKK2 Monoclonal Antibody (Catalog # MAB7128) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for MEKK2 at approximately 72 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>MEKK2 in 293T Human Cell Line.</b> MEKK2 was detected in immersion fixed 293T human embryonic kidney cell line using Mouse Anti-Human/Mouse/Rat MEKK2 Monoclonal Antibody (Catalog # MAB7128) 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 and cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>. This application has not been tested in mouse or rat samples.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Sterile PBS to a final concentration of 0.5 mg/mL.
<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**

MAPK/ERK kinase 2 (MEKK2) is a widely expressed 70 kDa member of the MEKK/STE11 subfamily of Ser/Thr kinases. It contains a PB1 domain (aa 43-122) which mediates dimerization with MEK5, a region with several phosphorylation sites, and a protein kinase domain (aa 357-617) that includes a site for activating phosphorylation at Thr524. Within aa 42-264, human MEKK2 shares 93% aa sequence identity with mouse and rat MEKK2. Activated MEKK2 translocates from the cytosol to the nucleus, where it forms a complex that binds and activates MKK7 in the c-Jun N-terminal kinase (JNK) pathway, relaying mitogenic and stress signals.