

DESCRIPTION

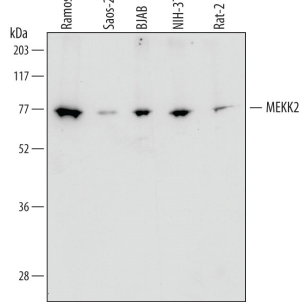
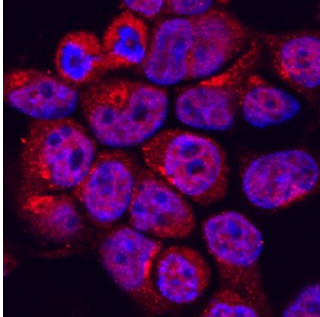
Species Reactivity	Human/Mouse/Rat
Specificity	Detects recombinant human MEKK2 in direct ELISA and human, mouse, rat MEKK2 in Western blots. In direct ELISAs and Western blots, no cross-reactivity with recombinant human MEKK1, 3, or 4 is observed.
Source	Monoclonal Mouse IgG _{2A} Clone # 722728
Purification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

	Recommended Concentration	Sample
Western Blot	2 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

DATA

<p>Western Blot</p> 	<p>Detection of Human, Mouse, and Rat MEKK2 by Western Blot. 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>Immunocytochemistry</p>  <p>MEKK2 in 293T Human Cell Line. 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 Fluorescent ICC Staining of Cells on Coverslips. This application has not been tested in mouse or rat samples.</p>
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PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.