

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human MKK3 in direct ELISAs and Western blots. In Western blots, no cross-reactivity with recombinant human MKK6 is observed.
<b>Source</b>	Monoclonal Mouse IgG <sub>2B</sub> Clone # 275909
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human MKK3 Met1-Ser347 Accession # P46734
<b>Formulation</b>	Supplied as a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

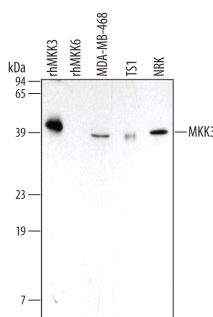
## APPLICATIONS

**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
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	15-30 µg/mL	See Below

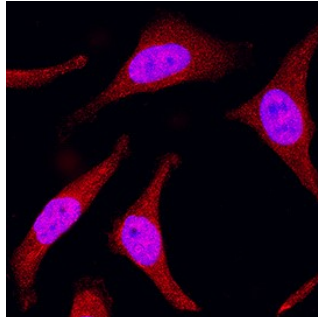
## DATA

**Western Blot**



**Detection of Human/Mouse/Rat MKK3 by Western Blot.** Western blot shows lysates of MDA-MB-468 human breast cancer cell line, TS1 mouse helper T cell line, and NRK rat normal kidney cell. PVDF membrane was probed with 1 µg/mL Mouse Anti-Human/Mouse/Rat MKK3 Monoclonal Antibody (Catalog # MAB2515) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). For additional reference, recombinant human MKK3 and MKK6 (2 ng/lane) were included. A specific band for MKK3 was detected at approximately 40 kDa (as indicated). This experiment was conducted under reducing conditions and using [Immunoblot Buffer Group 1](#).

**Immunocytochemistry**



**MKK3 in HeLa Human Cell Line.** MKK3 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line using Mouse Anti-Human/Mouse/Rat MKK3 Monoclonal Antibody (Catalog # MAB2515) at 25 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 cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with dry ice or equivalent. 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 opening.</li> <li>6 months, -20 to -70 °C under sterile conditions after opening.</li> </ul>

## BACKGROUND

Mitogen-activated protein kinase kinase 3 (MKK3), also known as MEK3, and the closely related MKK6 are activated by proinflammatory cytokines and environmental stresses. Activation occurs through phosphorylation by several upstream MAPK kinase kinases, including ASK1 and TAK1. Both MKK3 and MKK6 are dual specificity protein kinases, phosphorylating and activating the p38 MAP kinases at Thr and Tyr positions within the phosphoacceptor sequence Thr-Gly-Tyr.

## PRODUCT SPECIFIC NOTICES

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