

## DESCRIPTION

<b>Species Reactivity</b>	Human/Mouse/Rat
<b>Specificity</b>	Detects human STK3 in direct ELISAs and Western blots.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 2072A
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human STK3 Ala339-Asp456 Accession # Q13188
<b>Formulation</b>	Supplied as a solution in PBS containing BSA, Glycerol and Sodium Azide. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

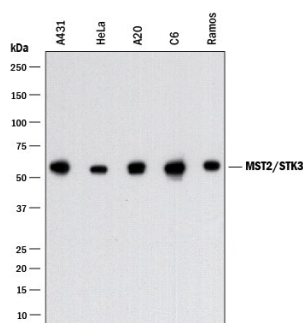
## APPLICATIONS

**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>	0.1 µg/mL	See Below
<b>Immunocytochemistry</b>	3-25 µg/mL	See Below
<b>Immunohistochemistry</b>	0.3-25 µg/mL	See Below
<b>Simple Western</b>	1 µg/mL	See Below

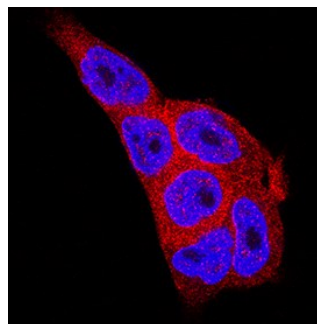
## DATA

### Western Blot



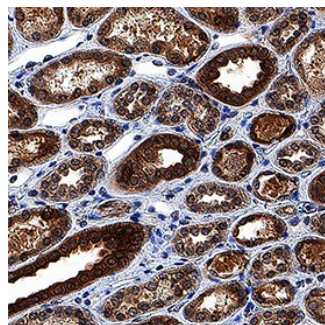
**Detection of Human, Mouse, and Rat MST2/STK3 by Western Blot.** Western blot shows lysates of A431 human epithelial carcinoma cell line, HeLa human cervical epithelial carcinoma cell line, A20 mouse B cell lymphoma cell line, C6 rat glioma cell line, and Ramos human Burkitt's lymphoma cell line. PVDF membrane was probed with 0.1 µg/mL of Rabbit Anti-Human/Mouse/Rat MST2/STK3 Monoclonal Antibody (Catalog # MAB4549) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for MST2/STK3 at approximately 65 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

### Immunocytochemistry



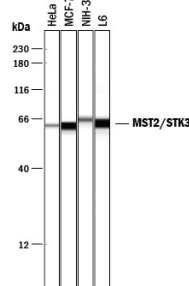
**MST2/STK3 in A431 Human Cell Line.** MST2/STK3 was detected in immersion fixed A431 human epithelial carcinoma cell line using Rabbit Anti-Human MST2/STK3 Monoclonal Antibody (Catalog # MAB4549) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm and nuclei. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

### Immunohistochemistry



**MST2/STK3 in Human Kidney.** MST2/STK3 was detected in immersion fixed paraffin-embedded sections of human kidney using Rabbit Anti-Human/Mouse/Rat MST2/STK3 Monoclonal Antibody (Catalog # MAB4549) at 0.3 µg/mL for 1 hour at room temperature followed by incubation with the Anti-Rabbit IgG VisUcye™ HRP Polymer Antibody (Catalog # VC003). Tissue was stained using DAB (brown) and counterstained with hematoxylin (blue). Specific staining was localized to cytoplasm and nuclei in epithelial cells in convoluted tubules. View our protocol for [IHC Staining with VisUcye HRP Polymer Detection Reagents](#).

### Simple Western



**Detection of Human, Mouse, and Rat MST2/STK3 by Simple Western™.** Simple Western lane view shows lysates of HeLa human cervical epithelial carcinoma cell line, MCF-7 human breast cancer cell line, NIH-3T3 mouse embryonic fibroblast cell line, and L6 rat myoblast cell line, loaded at 0.2 mg/mL. A specific band was detected for MST2/STK3 at approximately 62-64 kDa (as indicated) using 1 µg/mL of Rabbit Anti-Human/Mouse/Rat MST2/STK3 Monoclonal Antibody (Catalog # MAB4549). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.



## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. 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

MST2 (mammalian sterile twenty-like 2; also known as STK3 and Krs-1) is a 58 kDa member of the GCKII group of the STE20 subfamily of the STE Ser/Thr kinase protein family. In human, MST2 is 491 amino acids (aa) in length. It contains one kinase domain (aa 27-278), two NESs (aa 361-371 and 438-447) and coiled-coil domains (aa 287-328 and 442-475), and one NLS (aa 473-487). A caspase-cleavage site exists between Asp322-Ser323. MST2 is normally inactive in the cytoplasm bound to Raf-1. Cell activation induces Raf-1:MST2 dissociation, MST2 cleavage, and N-terminal translocation to the nucleus. Human MST2 is 99% and 96% aa identical to canine and mouse MST2, respectively.

## PRODUCT SPECIFIC NOTICES

\* Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to SDS for additional information and handling instructions.