Human Phospho-MSK1(S376)/MSK2(S360) Antibody

Recombinant Monoclonal Rabbit IgG Clone # 1013F
Catalog Number: MAB25181

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human MSK1 and MSK2 when phosphorylated at S376 and S360, respectively.
Source	Recombinant Monoclonal Rabbit IgG Clone # 1013F
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Phosphopeptide containing the human MSK1(S376) site. Accession # O75582
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.

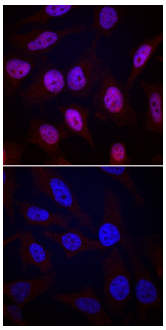
APPLICATIONS

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
Immunocytochemistry	1-25 µg/mL	See Below

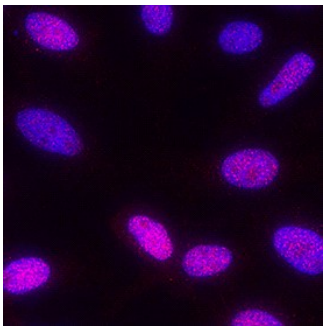
DATA

Immunocytochemistry



Phospho-MSK1(S376)/MSK2(S360) in HeLa Human Cell Line. MSK1/2 phosphorylated at S376/S360 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line stimulated (top panel), or unstimulated (bottom panel), with 200 ng/mL Recombinant Human EGF (Catalog # 236-EG) using Rabbit Anti-Human MSK1/2 Monoclonal Antibody (Catalog # MAB25181) at 10 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 nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

Immunocytochemistry



Phospho-MSK1(S376)/MSK2(S360) in HeLa Human Cell Line. MSK1/2 phosphorylated at S376/S360 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line treated with PMA using Rabbit Anti-Human MSK1/MSK2 Monoclonal Antibody (Catalog # MAB25181) at 1 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 nuclei. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS
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.** ● 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

Mitogen- and Stress-activated protein Kinases 1 and 2 (MSK1/2) have been shown to play key roles in the transcriptional regulation of immediate early genes such as c-fos. MSK1, also known as Ribosomal Protein S6 Kinase 5 (RPS6KA5), and MSK2, also known as RSKB and RPS6KA4, belong to the AGC family of kinases. Both proteins have two kinase domains connected by a regulatory linker region, and are activated by the mitogen-activated protein kinases ERK1, ERK2, and p38. Nuclear MSK phosphorylates and activates a number of transcription factors, including ATF1 and CREB. The phosphorylation of MSK1 at Ser376 or the equivalent Ser360 in MSK2 is required for kinase activity. These sites are located in the AGC kinase domain and are autophosphorylated. Their phosphorylation is essential for the catalytic activity of the N-terminal kinase domain. The sequence surrounding MSK1(S376) and MSK2(S360) is 100% identical.

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