

### DESCRIPTION

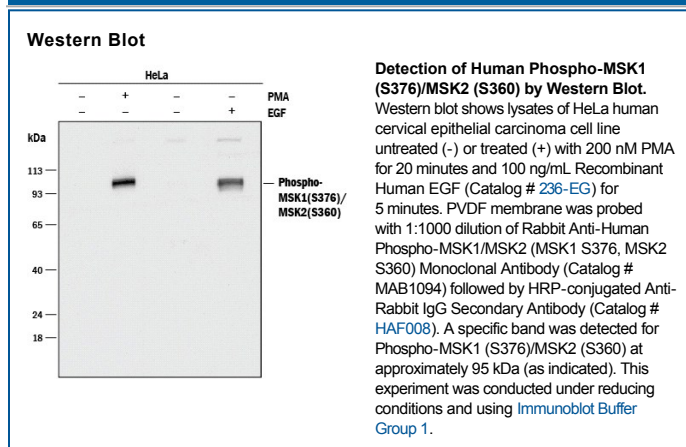
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human MSK1 and MSK2 when phosphorylated at S376 and S360, respectively.
<b>Source</b>	Recombinant Monoclonal Rabbit IgG Clone # 1013D
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Phosphopeptide containing the human MSK1(S376) site. Accession # O75582
<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>	1:1000 dilution	See Below

### DATA



### 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>	<ul style="list-style-type: none"> <li>● 12 months from date of receipt, -20 °C as supplied.</li> <li>● 1 month, 2 to 8 °C under sterile conditions after opening.</li> <li>● 6 months, -20 °C under sterile conditions after opening.</li> </ul>

### 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.

### 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.