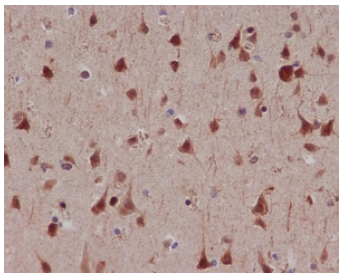
# Phospho-MSK1 (S376) Antibody [clone FCF-18] (RQ4786)

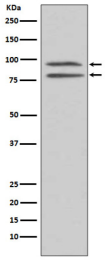
| Catalog No. | Formulation | Size |
|---|---|---|
| RQ4786 | Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA | 100 ul |

**Bulk quote request**

| | |
|---|---|
| **Availability** | 1-2 weeks |
| **Species Reactivity** | Human |
| **Format** | Purified |
| **Host** | Rabbit |
| **Clonality** | Rabbit Monoclonal |
| **Isotype** | Rabbit IgG |
| **Clone Name** | FCF-18 |
| **Purity** | Affinity purified |
| **UniProt** | O75582 |
| **Localization** | Nuclear + cytoplasmic |
| **Applications** | Western blot: 1:500-1:2000<br>Immunohistochemistry (FFPE): 1:50-1:200 |
| **Limitations** | This Phospho-MSK1 (S376) Antibody is available for research use only. |



Phospho-MSK1 (S376) Antibody Rat Brain IHC. Immunohistochemistry analysis of paraffin-embedded rat brain tissue using Phospho-MSK1 (S376) Antibody. Heat induced antigen retrieval was performed prior to staining. Strong nuclear staining is observed in neurons throughout the brain, consistent with phosphorylation of MSK1 at serine 376 following activation of MAPK signaling pathways. These results support the use of Phospho-MSK1 (S376) Antibody for studying activated MSK1, neuronal signal transduction and phosphorylation-dependent cellular responses.




Phospho-MSK1 (S376) Antibody EGF Treated HEK293 Cell WB. Western blot analysis of human HEK293 cell lysate treated with EGF using Phospho-MSK1 (S376) Antibody, clone FCF-18. A specific band is detected at approximately 90 kDa, consistent with the predicted molecular weight of phosphorylated MSK1. EGF stimulation activates upstream MAPK signaling pathways that promote MSK1 phosphorylation. These results support the use of Phospho-MSK1 (S376) Antibody, clone FCF-18 for studying MSK1 activation, MAPK signaling pathways and phosphorylation-dependent cellular responses.

## Description

Phospho-MSK1 (S376) Antibody, clone FCF-18 detects MSK1 when phosphorylated at serine 376, a regulatory modification associated with activation of this MAPK pathway kinase. MSK1, encoded by the RPS6KA5 gene, is a nuclear serine/threonine kinase activated downstream of ERK and p38 signaling pathways. Phosphorylation events within MSK1 regulate kinase activity and allow extracellular signals generated by stress responses, growth factors and inflammatory pathways to influence nuclear transcription programs.

Phosphorylation of MSK1 at serine 376 occurs within the kinase regulatory pathway and contributes to activation-associated signaling mechanisms. Activated MSK1 phosphorylates downstream targets including CREB and histone H3, connecting MAPK pathway stimulation with transcription factor regulation and chromatin-associated responses. A Phospho-MSK1 (S376) Antibody, clone FCF-18 is useful for researchers specifically studying MSK1 activation status rather than total protein expression levels.

MSK1 phosphorylation research is important for understanding how cells convert upstream signaling events into functional nuclear responses. Changes in MSK1 activation have been investigated in studies involving inflammatory signaling, neuronal pathways, stress responses and cancer biology. Monitoring site-specific phosphorylation provides insight into pathway activity, kinase regulation and downstream signaling changes that may not be reflected by total MSK1 expression alone.

Clone FCF-18 is a recombinant rabbit monoclonal antibody designed for detection of phosphorylated MSK1 at serine 376. Recombinant monoclonal antibody technology provides a consistent antibody source and defined clone identity for research applications requiring reproducible phospho-specific detection. Phosphorylation site-specific antibodies are valuable tools for analyzing kinase activation, pathway dynamics and signal transduction mechanisms.

NSJ Bioreagents offers Phospho-MSK1 (S376) Antibody, clone FCF-18 for researchers investigating MAPK signaling, kinase phosphorylation and transcriptional regulation pathways. This antibody supports analysis of activated MSK1 signaling and phosphorylation-dependent cellular responses. Phospho-MSK1 (S376) Antibody, clone FCF-18 provides a valuable tool for studying RPS6KA5 activation, MAPK pathway regulation and nuclear kinase signaling.

Researchers studying phosphorylated MSK1 activation may also be interested in our RPS6KA5 Antibody / MAPK Signaling Kinase Antibody page, featuring a Protein Microarray Validated antibody for analysis of total RPS6KA5 expression, MAPK signaling pathways and kinase regulation.

## Application Notes

Optimal dilution of the Phospho-MSK1 (S376) Antibody should be determined by the researcher.

## Immunogen

A synthetic peptide specific to human MSK1 / RPS6KA5 (surrounding pS376) was used as the immunogen for the Phospho-MSK1 (S376) Antibody.

## Storage

Store the Phospho-MSK1 (S376) Antibody at -20oC.


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