

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human p38 α when phosphorylated at T180/Y182.
Source	Monoclonal Rat IgG _{2B} Clone # 948243
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing human p38 α T180/Y182 site Accession # Q16539
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 μ m filtered solution in PBS.

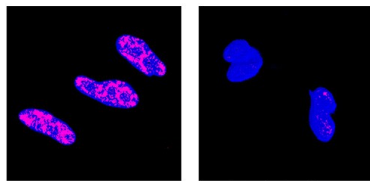
APPLICATIONS

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	5-25 μ g/mL	See Below

DATA

Immunocytochemistry



Untreated

Treated with
Calf Intestinal Phosphatase

Phospho-p38 alpha (T180/Y182) in HeLa Human Cell Line. p38 α phosphorylated at T180/Y182 was detected in immersion fixed HeLa human cervical epithelial carcinoma cell line, untreated or treated with calf intestinal phosphatase, using Rat Anti-Human Phospho-p38 α (T180/Y182) Monoclonal Antibody (Catalog # MAB8692) at 25 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) 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. <ul style="list-style-type: none"> ● 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

The p38 Mitogen-activated Protein Kinases (MAPKs) are a family of four related Ser/Thr kinases activated by proinflammatory cytokines and environmental stresses, such as UV irradiation and heat shock. Stress signals are delivered to this cascade by members of small GTPases of the Rho family (Rac, Rho, Cdc42). p38 MAPK is involved in the regulation of Hsp27 and MAPKAP-2 and several transcription factors including ATF2, STAT1, and indirectly CREB via activation of MSK1. The p38 MAPK protein also plays a role in cell differentiation, autophagy and apoptosis. Mkk3 and SEK can activate p38 MAPK by phosphorylation at Thr180 and Tyr182, which in turn activates the MAPKAP kinase 2 and regulating phosphorylation of ATF2, Mac and MEF2.