

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human GSK-3 β when phosphorylated at S9.
Source	Monoclonal Mouse IgG ₁ Clone # 609739
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Phosphopeptide containing the human GSK-3 β S9 site
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 either lyophilized or as a 0.2 μ m filtered solution in PBS.

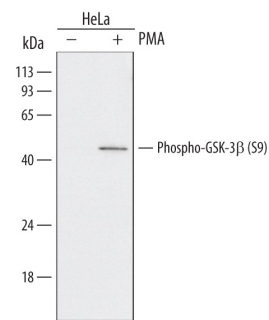
APPLICATIONS

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
Western Blot	1 μ g/mL	See Below
Immunocytochemistry	8-25 μ g/mL	See Below
Intracellular Staining by Flow Cytometry	2.5 μ g/10 ⁶ cells	See Below
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.	

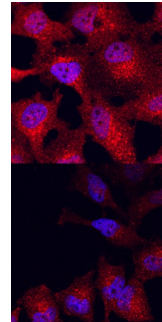
DATA

Western Blot



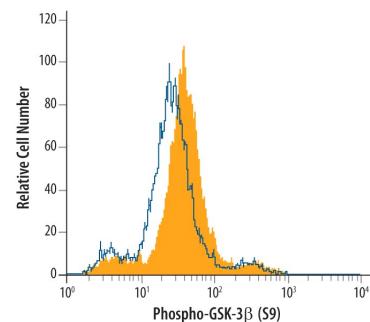
Detection of Human Phospho-GSK-3 β (S9) by Western Blot. Western blot shows lysates of HeLa human cervical epithelial carcinoma cell line untreated (-) or treated (+) with 200 nM PMA for 20 minutes. PVDF Membrane was probed with 1 μ g/mL of Human Phospho-GSK-3 β (S9) Monoclonal Antibody (Catalog # MAB25062) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Phospho-GSK-3 β (S9) at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunocytochemistry



Phospho-GSK-3 β (S9) in HeLa Human Cell Line. GSK-3 β phosphorylated at S9 was detected in immersion fixed HeLa human cervical epithelial carcinoma cells, unstimulated (lower panel) or stimulated (upper panel) with PMA, using Mouse Anti-Human Phospho-GSK-3 β (S9) Monoclonal Antibody (Catalog # MAB25062) at 10 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

Intracellular Staining by Flow Cytometry



Detection of Phospho-GSK-3 β (S9) in HeLa Human Cell Line by Flow Cytometry. HeLa human cervical epithelial carcinoma cell line untreated (open histogram) or treated with 120 ng/mL PMA for 15 minutes (filled histogram) was stained with Human Phospho-GSK-3 β (S9) Monoclonal Antibody (Catalog # MAB25062) or isotype control antibody (Catalog # MAB002, not shown), followed by Fluorescein-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # F0103B). To facilitate intracellular staining, cells were fixed with paraformaldehyde and permeabilized with saponin.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
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	<p>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</p> <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

Glycogen Synthase Kinase-3 (GSK-3) is a serine/threonine kinase initially identified as an inhibitor of glycogen synthase. Two isoforms (GSK-3 α and GSK-3 β) share 85% amino acid identity. GSK-3 β , inhibited by phosphorylation at S9 by Akt, is involved in energy metabolism, body pattern formation, and neuronal cell development.