Human/Mouse/Rat Phospho-GSK-3α (S21) Antibody

Antigen Affinity-purified Polyclonal Rabbit IgG
Catalog Number: AF4125

DESCRIPTION

Species Reactivity	Human/Mouse/Rat
Specificity	Detects human, mouse, and rat GSK-3α when phosphorylated at S21. This antibody does not detect phosphorylated GSK-3β.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	Phosphopeptide containing human, mouse, and rat GSK-3α S21 site
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.

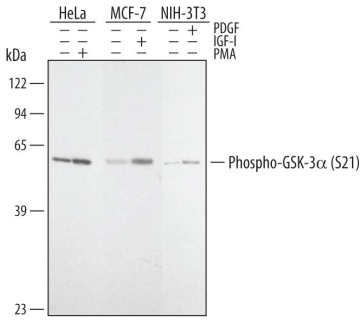
APPLICATIONS

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
Western Blot	1 µg/mL	See Below
Immunohistochemistry	5-15 µg/mL	See Below

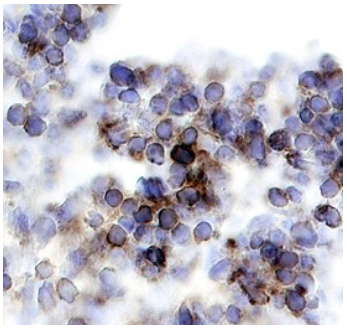
DATA

Western Blot



Detection of Human and Mouse Phospho-GSK-3α (S21) 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 and MCF-7 human breast cancer cell line untreated or treated with 100 ng/mL Recombinant Human IGF-1 (Catalog # 291-G1) for 15 minutes and NIH-3T3 mouse embryonic fibroblast cell line untreated or treated with 10 ng/mL PMA for 20 minutes. PVDF membrane was probed with 1 µg/mL of Human/Mouse/Rat Phospho-GSK-3α (S21) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4125), followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for Phospho-GSK-3α (S21) at approximately 51 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

Immunohistochemistry



GSK-3α in Human Thymus. GSK-3α was detected in immersion fixed paraffin-embedded sections of human thymus using 5 µg/mL Human/Mouse/Rat Phospho-GSK-3α (S21) Antigen Affinity-purified Polyclonal Antibody (Catalog # AF4125) overnight at 4 °C. Before incubation with the primary antibody tissue was subjected to heat-induced epitope retrieval using Antigen Retrieval Reagent-Basic (Catalog # CTS013). Tissue was stained with the Anti-Rabbit HRP-DAB Cell & Tissue Staining Kit (brown; Catalog # CTS005) and counterstained with hematoxylin (blue). View our protocol for Chromogenic IHC Staining of Paraffin-embedded Tissue Sections.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 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

Glycogen Synthase Kinase-3 (GSK-3) is a serine/threonine kinase initially identified as an inhibitor of glycogen synthase. Two isoforms (GSK-3α and GSK-3β) share 85% amino acid identity. GSK-3α is inhibited by phosphorylation at S21 by Akt and other kinases. Deregulated GSK-3 has been implicated in several diseases including type II diabetes, Alzheimer's disease, bipolar disorder, and cancer.

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