

Anti-GSK-3 α / β (Tyr-279/Tyr-216), Phosphospecific Antibody
Catalog # AN1807**Specification****Anti-GSK-3 α / β (Tyr-279/Tyr-216), Phosphospecific Antibody - Product Information**

Primary Accession	P49840
Reactivity	Bovine
Host	Mouse
Clonality	Mouse Monoclonal
Isotype	IgG1
Calculated MW	50981

Anti-GSK-3 α / β (Tyr-279/Tyr-216), Phosphospecific Antibody - Additional InformationGene ID **2931****Other Names**

Glycogen synthase kinase beta3

Target/Specificity

Glycogen synthase kinase-3 (GSK-3) has been implicated in fundamental cell processes such as cell fate determination, metabolism, transcriptional control, and oncogenesis. Two GSK-3 genes (α and β) have been cloned in mammals and these kinase homologues show strong sequence conservation within their catalytic domain. GSK-3 β plays a critical role in cell survival by phosphorylating nuclear factor- κ B (NF- κ B) p65 subunit, leading to NF- κ B transactivation in hepatocytes. Phosphorylation regulates the activity of both GSK-3 genes. MEK1/2 can phosphorylate tyrosine 216 (tyrosine 279 in GSK-3 α), which stimulates GSK-3 kinase activity. Tyr-216 phosphorylation is required for GSK-mediated down-regulation of β -catenin activity. Also, TRAIL stimulation can increase Tyr-216 phosphorylation, and GSK-3 β activity may suppress TRAIL-induced apoptosis. Inactivation of GSK-3 occurs through Akt phosphorylation of serine 9 of GSK-3 β (Serine 21 in GSK-3 α). This phosphorylation may be involved in later phases of neuronal apoptosis.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Anti-GSK-3 α / β (Tyr-279/Tyr-216), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping

Blue Ice

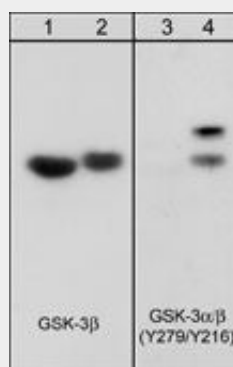
Anti-GSK-3 α / β (Tyr-279/Tyr-216), Phosphospecific Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-GSK-3 α/β (Tyr-279/Tyr-216), Phosphospecific Antibody - Images



Western blot analysis of rabbit spleen fibroblasts serum starved for 2 hrs (lanes 1 & 3) or treated with pervanadate (1 mM) for 30 minutes (lanes 2 & 4). The blot was probed with anti-GSK-3 β (lanes 1 & 2) or anti-GSK-3 α/β (Y279/Y216) (lanes 3 & 4).

Anti-GSK-3 α/β (Tyr-279/Tyr-216), Phosphospecific Antibody - Background

Glycogen synthase kinase-3 (GSK-3) has been implicated in fundamental cell processes such as cell fate determination, metabolism, transcriptional control, and oncogenesis. Two GSK-3 genes (α and β) have been cloned in mammals and these kinase homologues show strong sequence conservation within their catalytic domain. GSK-3 β plays a critical role in cell survival by phosphorylating nuclear factor- κ B (NF- κ B) p65 subunit, leading to NF- κ B transactivation in hepatocytes. Phosphorylation regulates the activity of both GSK-3 genes. MEK1/2 can phosphorylate tyrosine 216 (tyrosine 279 in GSK-3 α), which stimulates GSK-3 kinase activity. Tyr-216 phosphorylation is required for GSK-mediated down-regulation of β -catenin activity. Also, TRAIL stimulation can increase Tyr-216 phosphorylation, and GSK-3 β activity may suppress TRAIL-induced apoptosis. Inactivation of GSK-3 occurs through Akt phosphorylation of serine 9 of GSK-3 β (Serine 21 in GSK-3 α). This phosphorylation may be involved in later phases of neuronal apoptosis.