



Rabbit Anti-GSK3A, GSK3B monoclonal antibody, clone TZ37-16 (CABT-L635)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Target	Phospho-GSK3(alpha+beta)(Y216+Y279)
Immunogen	Recombinant protein
Isotype	IgG
Source/Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Clone	TZ37-16
Purification	Protein A purified.
Conjugate	Unconjugated
Applications	WB, ICC, IHC, IP
Molecular Weight	51 kDa
Cellular Localization	Cytoplasm, Nucleus, Cell membrane.
Positive Control	A431, MCF-7, HeLa.
Format	Liquid
Size	100 µl
Buffer	1×TBS (pH7.4), 1% BSA, 40% Glycerol.
Preservative	0.05% Sodium Azide

Storage	Store at +4°C after thawing. Aliquot store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
----------------	--

BACKGROUND

Introduction	Glycogen synthase kinase-3 α (GSK-3 α) and GSK-3 β are highly similar isoforms of serine/threonine kinases that regulate metabolic enzymes and transcription factors, which are responsible for coordinating processes such as glycogen synthesis and cell adhesion. GSK-3 β activity is also required for nuclear activity of Rel dimers, which mediate an anti-apoptotic response to TNF α in mice. GSK-3 catalytic kinase activity is controlled through differential phosphorylation of serine/threonine residues, which have an inhibitory effect, and tyrosine residues, which have an activating effect. Growth factor stimulation of mammalian cells expressing GSK-3 α and GSK-3 β induces phosphorylation of Ser 21 and Ser 9, respectively, through a phosphatidylinositol 3-kinase (PI 3-K)-protein kinase B (PKB)-dependent pathway, thereby enhancing proliferative signals. Additionally, GSK-3 physically associates with cAMP-dependent protein kinase A (PKA), which phosphorylates Ser 21 of GSK-3 α or Ser 9 of GSK-3 β and inactivates both forms. GSK-3 α / β is positively regulated by phosphorylation on Tyr 279 and Tyr 216, respectively. Activated GSK-3 α / β participates in energy metabolism, neuronal cell development, and body pattern formation. Tyrosine dephosphorylation of GSK-3 is involved in its extracellular signal-dependent inactivation.
---------------------	--

Keywords	Factor A;Glycogen synthase kinase 3 alpha;Glycogen synthase kinase 3 beta;GSK3 alpha;GSK3 beta;GSK3B antibody
-----------------	---
