Data Sheet (Cat.No.TMAY-01513)

TargetMol

Anti-Phospho-GSK3 beta (Ser9) Antibody (7D812)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human; Species predicted to react based on 100% sequence homology: mouse, rat
Conjugation:	Unconjugated
Clone:	7D812
Purification:	Protein A

Applications

Verified Activity:	1. Western blot analysis of extracts from serum-starved Hela treated with calyculin A (100nM, 30 min), using Phospho-GSK3 beta (Ser9) Antibody, Rabbit MAb at 1:1000, 1:10000, 1:200000 dilution. (Validation Experiment) 2. Western blot analysis of extracts from serum-starved Hela, untreated (-) or treated with Calyculin A (100 nM, 30 min; +), using Phospho-GSK3 beta (Ser9) rabbit monoclonal Antibody at 1:1000 dilution.
Application:	WB
Recommended	WB: 1:1000-1:5000

Properties

Stability & Storage:	Store at 2°C-8°C for 1 month. Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles. Preservative-Free.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide corresponding to residues around Ser9 of Human Phospho-GSK3 beta
Antigen Species:	Human
Synonyms:	GSK3 beta (p-Ser9);GSK3 beta (p-S9);p-GSK3 beta (Ser9);Phospho-GSK3 beta (S9);p-GSK3 beta (S9)
Biology Area:	Notch Pathway

Research Background

GSK3B is a serine-threonine kinase, belonging to the glycogen synthase kinase subfamily. It Contains 1 protein kinase domain, and is expressed in the testis, thymus, prostate, and ovary and weakly expressed in the lung, brain, and kidney. GSK3B is involved in energy metabolism, neuronal cell development, and body pattern formation. Polymorphisms in the GSK3B gene have been implicated in modifying the risk of Parkinson's disease, and studies in mice show that overexpression of this gene may be relevant to the pathogenesis of Alzheimer's disease. GSK3B participates in the Wnt signaling pathway. It is implicated in the hormonal control of several regulatory proteins including glycogen synthase, MYB, and the transcription factor JUN. Phosphorylates JUN at sites proximal to its DNA-binding domain, thereby reducing its affinity for DNA. Phosphorylates MUC1 in breast cancer cells, and decreases the interaction of MUC1 with CTNNB1/beta-catenin. GSK3B also plays an important role in ERBB2-dependent stabilization of microtubules at the cell cortex. It prevents the phosphorylation of APC and CLASP2, allowing its association with the cell membrane. In turn, membrane-bound APC allows the localization of MACF1 to the cell

membrane, which is required for microtubule capture and stabilization. GSK3B phosphorylates MACF1 and this phosphorylation inhibits the binding of MACF1 to microtubules which are critical for its role in bulge stem cell migration and skin wound repair. It may be required for early embryo development and neuron differentiation.

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