

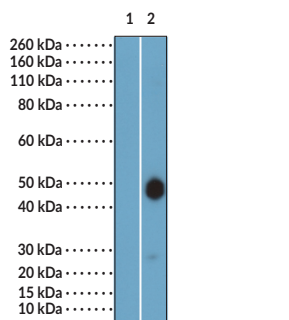
PRODUCT INFORMATION

GSK3 β (Phospho-Ser⁹) Rabbit Monoclonal Antibody (Clone RM453) Item No. 42815

Overview and Properties

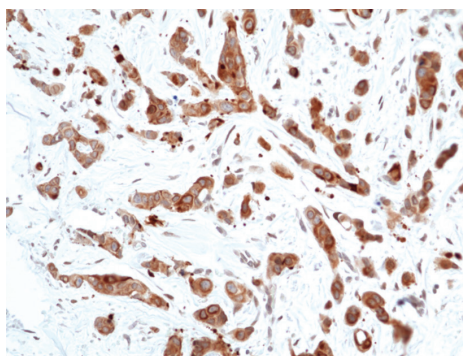
Contents:	This vial contains 100 μ l of protein A affinity-purified monoclonal antibody
Synonyms:	Glycogen Synthase Kinase 3 β , GSK3B, Serine/threonine-protein Kinase GSK3B
Immunogen:	A peptide corresponding to GSK3 β (phospho-Ser ⁹)
Cross Reactivity:	(+) GSK3 β (phospho-Ser ⁹); (-) Non-phosphorylated GSK3 β
Species Reactivity:	(+) Human, mouse, rat
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥ 1 year
Storage Buffer:	PBS, with 50% glycerol, 1% BSA, and 0.09% sodium azide
Clone:	RM453
Host:	Rabbit
Isotype:	IgG
Applications:	Immunohistochemistry (IHC) and Western blot (WB); the recommended starting dilution is 1:50-1:200 for IHC and 1:1,000-1:2,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HeLa cells treated
Lane 2: HeLa cells untreated

WB of lysates of serum-starved HeLa cells treated with Calyculin A or left untreated using GSK3 β (Phospho-Ser⁹) Rabbit Monoclonal Antibody (Clone RM453) at a dilution of 1:1,000.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human tonsil tissue section using GSK3 β (Phospho-Ser⁹) Rabbit Monoclonal Antibody (Clone RM453) at a 1:100 dilution.

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 03/03/2025

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM

PRODUCT INFORMATION



Description

Glycogen synthase kinase 3 β (GSK3 β) is a serine/threonine protein kinase that has roles in numerous signaling pathways and cellular processes, including cell proliferation and survival, as well as neural development and plasticity.^{1,2} It is composed of an N-terminal β -strand domain, a kinase domain, and a C-terminal α -helical domain.³ GSK3 β is constitutively active, ubiquitously expressed, and localizes predominantly to the cytosol but is also found in the nucleus and mitochondria.^{2,4} It is inhibited by phosphorylation at serine 9 (Ser⁹), which is mediated by a variety of kinases, including PKA and Akt, and has roles in insulin, growth factor, and Wnt signaling pathways.² GSK3 β is involved in several pathophysiological conditions, such as diabetes, cancer, inflammation, and neurological or psychiatric disorders, including Alzheimer's disease, Parkinson's disease, and bipolar disorder.^{1,4} Cayman's GSK3 β (Phospho-Ser⁹) Rabbit Monoclonal Antibody (Clone RM453) can be used for immunohistochemistry (IHC) and Western blot (WB) applications.

References

1. Yang, K., Chen, Z., Gao, J., *et al.* The key roles of GSK-3 β in regulating mitochondrial activity. *Cell. Physiol. Biochem.* **44**(4), 1445-1459 (2017).
2. Krishnankutty, A., Kimura, T., Saito, T., *et al.* *In vivo* regulation of glycogen synthase kinase 3 β activity in neurons and brains. *Sci. Rep.* **7**(1), 8602 (2017).
3. ter Haar, E., Coll, J.T., Austen, D.A., *et al.* Structure of GSK3 β reveals a primed phosphorylation mechanism. *Nat. Struct. Biol.* **8**(7), 593-596 (2001).
4. Beurel, E., Grieco, S.F., and Jope, R.S. Glycogen synthase kinase-3 (GSK3): Regulation, actions, and diseases. *Pharmacol. Ther.* **148**, 114-131 (2015).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM