

## Human/Mouse/Rat GSK-3β Antibody

Monoclonal Rat IgG<sub>2B</sub> Clone # 272536 Catalog Number: MAB2506

DESCRIPTION			
Species Reactivity	Human/Mouse/Rat		
Specificity	Detects human, mouse, and rat GSK-3β in ELISAs and Western blots. Does not cross-react with recombinant human GSK-3α.		
Source	Monoclonal Rat IgG <sub>2B</sub> Clone # 272536		
Purification	Protein A or G purified from hybridoma culture supernatant		
Immunogen	E. coli-derived recombinant human GSK-3β Met1-Thr420 Accession # P49841		
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.		

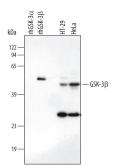
### APPLICATIONS

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.

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	Recommended Concentration	Sample	
Western Blot	1 μg/mL	See Below	
Immunocytochemistry	3-25 μg/mL	See Below	
Intracellular Staining by Flow Cytometry	2.5 µg/10 <sup>6</sup> cells	HeLa human cervical epithelial carcinoma cell line fixed with paraformaldehyde and permeabilized with methanol.	
CyTOF-ready	Ready to be labeled using established conjugation methods. No BSA or other carrier proteins that could interfere with conjugation.		

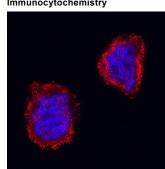
### DATA

#### Western Blot



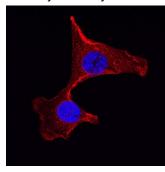
Detection of Human/Mouse/Rat GSK-3β by Western Blot. Western blot shows lysates of HT-29 human colon adenocarcinoma cell line and HeLa human cervical epithelial carcinoma cell line. PVDF membrane was probed with 1 μg/mL Human/Mouse/Rat GSK-3β Monoclonal Antibody (Catalog # MAB2506) followed by HRP-conjugated Anti-Rat IgG Secondary Antibody (Catalog # HAF005). For additional reference, recombinant human GSK-3α and Recombinant Human Active GSK-3β (Catalog # 2506-KS) (20 ng/lane) were included. A specific band for GSK-3 beta was detected at approximately 46 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.

#### Immunocytochemistry



GSK-3ß in HT-29 Human Cell Line. GSK-3β was detected in immersion fixed HT-29 human colon adenocarcinoma cell line using Rat Anti-Human/Mouse/Rat GSK-3β Monoclonal Antibody (Catalog # MAB2506) at 3 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

### Immunocytochemistry



GSK-3β in NIH-3T3 Mouse Cell Line. GSK-3β was detected in immersion fixed NIH-3T3 mouse embryonic fibroblast cell line using Rat Anti-Human/Mouse/Rat GSK-38 Monoclonal Antibody (Catalog # MAB2506) at 3 µg/mL for 3 hours at room temperature Cells were stained using the NorthernLights™ 557-conjugated Anti-Rat IgG Secondary Antibody (red; Catalog # NL013) and counterstained with DAPI (blue). Specific staining was localized to nuclei and cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.

#### PREPARATION AND STORAGE

Shipping

Reconstitution Reconstitute at 0.5 mg/mL in sterile PBS.

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

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#### BACKGROUND

Glycogen Synthase Kinase-3 (GSK-3) is a serine/threonine kinase initially identified as an inhibitor of glycogen synthase. Two isoforms (GSK-3\alpha and GSK-3\beta) share 85% amino acid identity. GSK-3\beta, inhibited by phosphorylation at S9 by Akt, is involved in energy metabolism, body pattern formation, and neuronal cell development.

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