Phospho-GSK-3β (Ser9) (D3A4) Rabbit mAb

For Research Use Only. Not For Use In Diagnostic Procedures.

**Applications**

<table>
<thead>
<tr>
<th>W, IP</th>
<th>Endogenous</th>
</tr>
</thead>
<tbody>
<tr>
<td>H, M, R</td>
<td>Molecular Wt.</td>
</tr>
<tr>
<td>46 kDa</td>
<td>Rabbit</td>
</tr>
</tbody>
</table>

**Background:** Glycogen synthase kinase-3 (GSK-3) was initially identified as an enzyme that regulates glycogen synthesis in response to insulin (1). GSK-3 is a ubiquitously expressed serine/threonine protein kinase that phosphorylates and inactivates glycogen synthase. GSK-3 is a critical downstream element of the PI3 kinase/Akt cell survival pathway whose activity can be inhibited by Akt-mediated phosphorylation at Ser21 of GSK-3α and Ser9 of GSK-3β (2,3). GSK-3 has been implicated in the regulation of cell fate in *Dictyostelium* and is a component of the Wnt signaling pathway required for *Drosophila*, *Xenopus* and mammalian development (4). GSK-3 has been shown to regulate cyclin D1 proteolysis and subcellular localization (5).

**Specificity/Sensitivity:** Phospho-GSK-3β (Ser9) (D3A4) Rabbit mAb detects endogenous levels of GSK-3β only when phosphorylated at Ser9.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic phosphopeptide corresponding to residues around Ser9 of human GSK-3β.

**Background References:**


**Storage:** Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. Do not aliquot the antibody.

**Anti-rabbit secondary antibodies must be used to detect this antibody.**

**Recommended Antibody Dilutions:**

- Western Blotting: 1:1000
- Immunoprecipitation: 1:50

For application specific protocols please see the web page for this product at www.cellsignal.com.

**Please visit www.cellsignal.com for a complete listing of recommended companion products.**

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.02% Tween-20 at 4°C with gentle shaking, overnight.