

**DATASHEET**

**GSK3 beta (Phospho-S9) Rabbit Polyclonal Antibody**

CAT. NO. APA07061

**KEY FEATURES**

|               |   |               |              |
|---------------|---|---------------|--------------|
| Target        | GSK3 beta (Phospho-S9)  | Source / Host | Rabbit       |
| Reactivity    | Human, Mouse, Rat, Bovine, Pig, Zebrafish   | Clonality     | Polyclonal   |
| Applications  | WB, IHC, IF/ICC, IP   | Conjugation   | Unconjugated |
| Form / Buffer | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. | Storage       | at-20°C      |

**BACKGROUND**

Constitutively active protein kinase that acts as a negative regulator in the hormonal control of glucose homeostasis, Wnt signaling and regulation of transcription factors and microtubules, by phosphorylating and inactivating glycogen synthase (GYS1 or GYS2), EIF2B, CTNNB1/beta-catenin, APC, AXIN1, DPYSL2/CRMP2, JUN, NFATC1/NFATC, MAPT/TAU and MACF1, EIF2B, CTNNB1/beta-catenin, APC, AXIN1, DPYSL2/CRMP2, JUN, NFATC1/NFATC, MAPT/TAU and MACF1. Requires primed phosphorylation of the majority of its substrates. In skeletal muscle, contributes to insulin regulation of glycogen synthesis by phosphorylating and inhibiting GYS1 activity and hence glycogen synthesis. May also mediate the development of insulin resistance by regulating activation of transcription factors.

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

|        |                |
|--------|----------------|
| WB     | 1:500 - 1:1000 |
| IHC    | 1:50 - 1:100   |
| IF/ICC | 1:50 - 1:200   |
| IP     | 1:10 - 1:100   |

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

|                   |   |
|-------------------|---|
| Description       | Rabbit polyclonal antibody to GSK3 beta (Phospho-S9)  |
| Specificity       | Recognizes endogenous levels of GSK3 beta protein only when phosphorylated at S9.   |
| Antibody Type     | Primary antibody  |
| Immunogen         | KLH-conjugated synthetic phosphopeptide corresponding to residues surrounding S9 of human GSK3 beta protein. The exact sequence is proprietary. |
| Purification      | The antibody was purified by immunogen affinity chromatography.   |
| Molecular Weight  | Predicted: 46 kD; Observed: 46 kD   |
| Form/Buffer       | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.                                       |
| Alternative Names | Glycogen synthase kinase-3 beta; GSK-3 beta; Serine/threonine-protein kinase GSK3B  |
| Gene Symbol       | GSK3B   |
| Entrez Gene       | 2932(Human); 56637(Mouse); 84027(Rat)   |
| SwissProt         | P49841(Human); Q9WV60(Mouse); P18266(Rat)   |

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

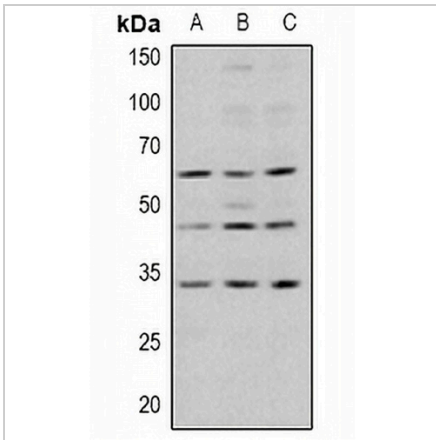
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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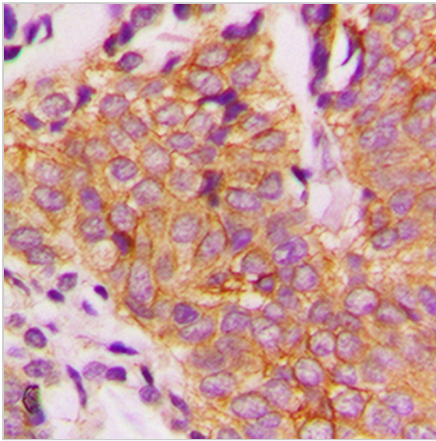
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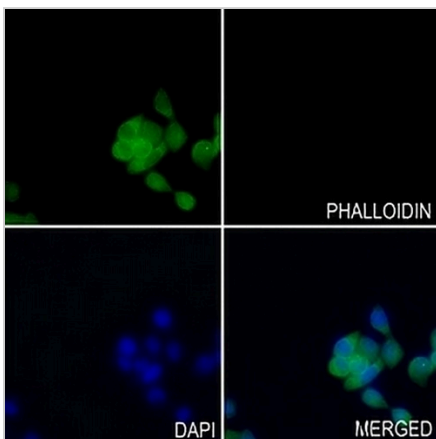
**DATA**



Western blot analysis of GSK3 beta (Phospho-S9) expression in HeLa (A), MCF7 (B), A549 (C) whole cell lysates. (Predicted band size: 46 kD; Observed band size: 46 kD)



Immunohistochemical analysis of GSK3 beta (Phospho-S9) staining in human breast cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



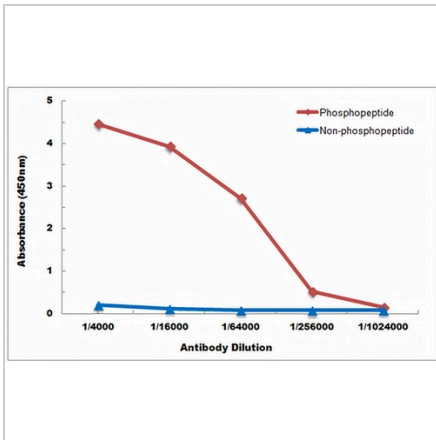
Immunofluorescent analysis of GSK3 beta (Phospho-S9) staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 - conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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**DATA (CONTINUED)**



Direct ELISA antibody dose-response curve using Anti-GSK3 beta (Phospho-S9) Antibody. Antigen (Phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.