

**GSK3 $\beta$  (PTR2553) mouse mAb**

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| <b>Catalog No :</b>          | YM3633   |
| <b>Reactivity :</b>          | Human;Mouse;Rat;   |
| <b>Applications :</b>        | WB;IF;ELISA  |
| <b>Target :</b>              | GSK3 $\beta$   |
| <b>Fields :</b>              | >>EGFR tyrosine kinase inhibitor resistance;>>ErbB signaling pathway;>>Chemokine signaling pathway;>>Cell cycle;>>mTOR signaling pathway;>>PI3K-Akt signaling pathway;>>Wnt signaling pathway;>>Hedgehog signaling pathway;>>Axon guidance;>>Hippo signaling pathway;>>Focal adhesion;>>Signaling pathways regulating pluripotency of stem cells;>>IL-17 signaling pathway;>>T cell receptor signaling pathway;>>B cell receptor signaling pathway;>>Neurotrophin signaling pathway;>>Dopaminergic synapse;>>Insulin signaling pathway;>>Melanogenesis;>>Prolactin signaling pathway;>>Thyroid hormone signaling pathway;>>Insulin resistance;>>Non-alcoholic fatty liver disease;>>Cushing syndrome;>>Growth hormone synthesis, secretion and action;>>Alcoholic liver disease;>>Alzheimer disease;>>Prion disease;>>Pathways of neurodegeneration - multiple diseases;>>Shigellosis;>>Yersinia infection;>>Hepatitis C;>>Measles;>>Human cytomegalovirus infection;>>Human papillomavirus infection;>>Kaposi sarcoma-associated herpes |
| <b>Gene Name :</b>           | GSK3B  |
| <b>Protein Name :</b>        | GSK3B  |
| <b>Human Gene Id :</b>       | 2932   |
| <b>Human Swiss Prot No :</b> | P49841   |
| <b>Mouse Swiss Prot No :</b> | Q9WV60   |
| <b>Rat Swiss Prot No :</b>   | P18266   |
| <b>Immunogen :</b>           | Synthetic Peptide of GSK3 $\beta$ at AA range of 1-100   |
| <b>Specificity :</b>         | This antibody detects endogenous levels of GSK3 $\beta$ protein.   |

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| <b>Formulation :</b>       | PBS, 50% glycerol, 0.05% Proclin 300, 0.05%BSA   |
| <b>Source :</b>            | Mouse, Monoclonal/IgG1, kappa  |
| <b>Dilution :</b>          | WB 1:500-2000. IF 1:100-500. ELISA 1:1000-5000   |
| <b>Purification :</b>      | Protein G  |
| <b>Concentration :</b>     | 1 mg/ml  |
| <b>Storage Stability :</b> | -15°C to -25°C/1 year(Do not lower than -25°C)   |
| <b>Molecularweight :</b>   | 46kD   |
| <b>Observed Band :</b>     | 42kD   |
| <b>Cell Pathway :</b>      | ErbB_HER;Chemokine;Cell_Cycle_G1S;Cell_Cycle_G2M_DNA;WNT;WNT-T<br>CELLHedgehog;Axon guidance;Focal adhesion;T_Cell_Receptor;B_Cell_Antigen<br>;Neurotrophin;Insulin_Receptor;Melanogenesis;Alzheimer's disease;  |
| <b>Background :</b>        | The protein encoded by this gene is a serine-threonine kinase, belonging to the glycogen synthase kinase subfamily. It is involved in energy metabolism, neuronal cell development, and body pattern formation. Polymorphisms in this gene have been implicated in modifying risk of Parkinson disease, and studies in mice show that overexpression of this gene may be relevant to the pathogenesis of Alzheimer disease. Alternatively spliced transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Sep 2009],  |
| <b>Function :</b>          | catalytic activity:ATP + [tau protein] = ADP + [tau protein] phosphate.,enzyme regulation:Inhibited when phosphorylated by AKT1.,function:Participates in the Wnt signaling pathway. 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.,PTM:Phosphorylated by AKT1 and ILK1.,similarity:Belongs to the protein kinase superfamily.,similarity:Belongs to the protein kinase superfamily. CMGC Ser/Thr protein kinase family. GSK-3 subfamily.,similarity:Contains 1 protein kinase domain.,subunit:Monomer (By similarity). Interacts with CABYR, MUC1, NIN and PRUNE.,tissue specificity:Expressed in testis, thymus, prostate |
| <b>Expression :</b>        | Expressed in testis, thymus, prostate and ovary and weakly expressed in lung, brain and kidney. Colocalizes with EIF2AK2/PKR and TAU in the Alzheimer disease (AD) brain.  |
| <b>Tag :</b>               | orthogonal   |

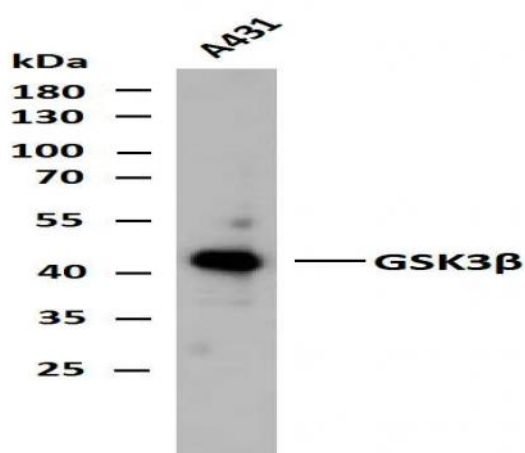
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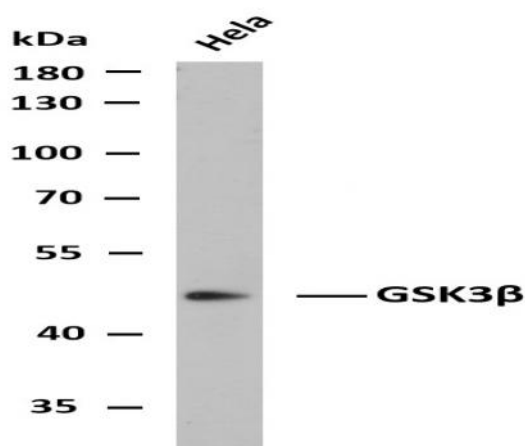
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|------------------------|------------|
| <b>Sort :</b>          | 7168       |
| <b>No4 :</b>           | 1          |
| <b>Host :</b>          | Mouse      |
| <b>Modifications :</b> | Unmodified |

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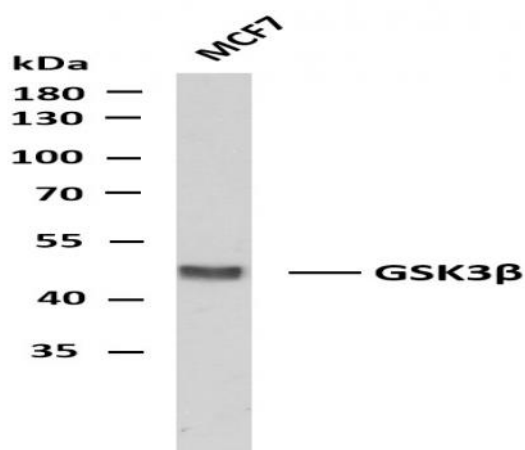
## Products Images



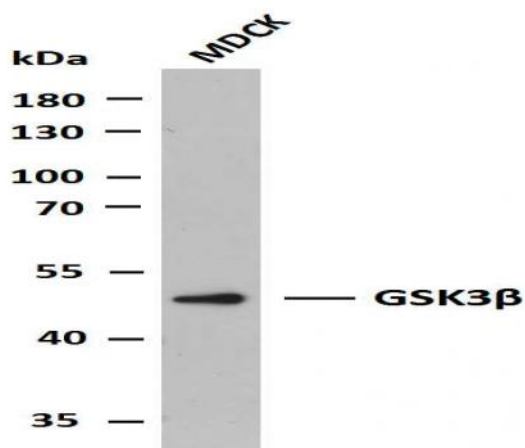
Whole cell lysates of A431 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-GSK3 $\beta$  antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: A431



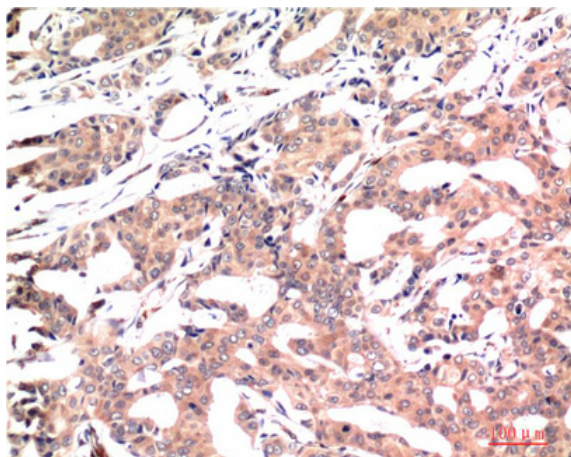
Whole cell lysates of HeLa were separated by 10% SDS-PAGE, and the membrane was blotted with anti-GSK3 $\beta$  antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa



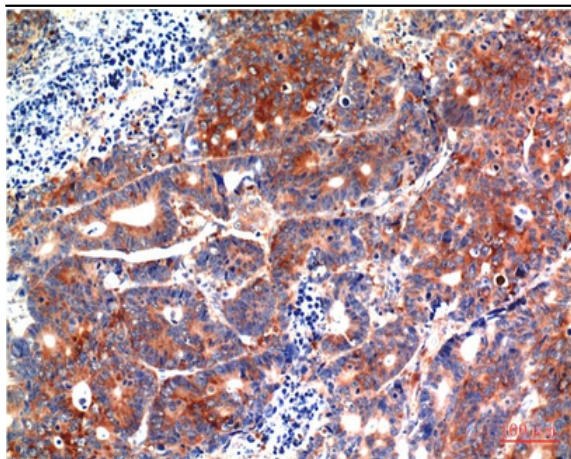
Whole cell lysates of MCF7 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-GSK3 $\beta$  antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: MCF7



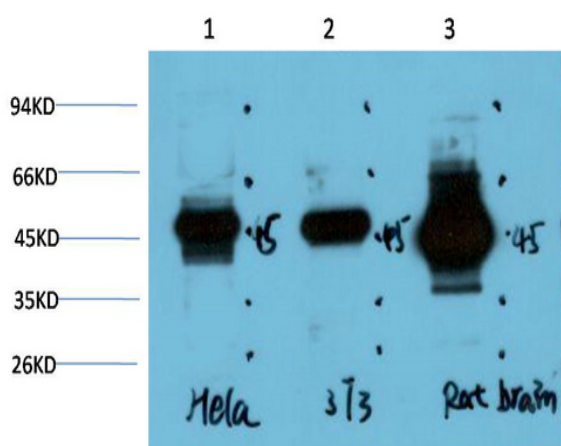
Whole cell lysates of MDCK were separated by 10% SDS-PAGE, and the membrane was blotted with anti-GSK3 $\beta$  antibody. The HRP-conjugated Goat anti-Mouse IgG(H + L) antibody was used to detect the antibody. Lane 1: MDCK



Immunohistochemical analysis of paraffin-embedded Human Breast Carcinoma Tissue using GSK3 $\beta$  Mouse mAb diluted at 1:200.



Immunohistochemical analysis of paraffin-embedded Human Stomach Carcinoma Tissue using GSK3 $\beta$  Mouse mAb diluted at 1:200.



Western blot analysis of 1) Hela Cell Lysate, 2) 3T3 Cell Lysate, 3) Rat Brain Tissue Lysate using GSK3 $\beta$  Mouse mAb diluted at 1:1000.