

## Summary

<b>Production Name</b>	GSK3 $\beta$ Rabbit Polyclonal Antibody
<b>Description</b>	Rabbit Polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	IF, WB, IHC, IP, ELISA
<b>Reactivity</b>	Human, Mouse, Rat, Rabbit

## Performance

<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

## Immunogen

<b>Gene Name</b>	GSK3B
<b>Alternative Names</b>	GSK3B; Glycogen synthase kinase-3 beta; GSK-3 beta; Serine/threonine-protein kinase GSK3B
<b>Gene ID</b>	2932.0
<b>SwissProt ID</b>	P49841. The antiserum was produced against synthesized peptide derived from human GSK3B. AA range:1-50

## Application

<b>Dilution Ratio</b>	IF 1:50-200 WB 1:500 - 1:2000. IHC 1:100 - 1:300. Immunoprecipitation: 2-5 ug:mg lysate. ELISA: 1:20000. Not yet tested in other applications.
<b>Molecular Weight</b>	47kD

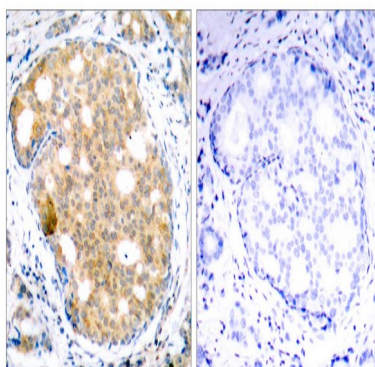
## Background

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],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 and ovary and weakly expressed in lung, brain and kidney.,

## Research Area

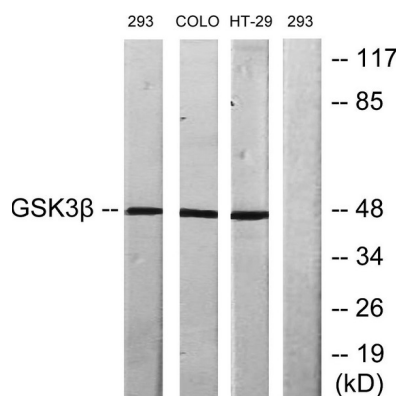
ErbB\_HER;Chemokine;Cell\_Cycle\_G1S;Cell\_Cycle\_G2M\_DNA;WNT;WNT-T CELLHedgehog;Axon guidance;Focal adhesion;T\_Cell\_Receptor;B\_Cell\_Antigen;Neurotrophin;Insulin\_Receptor;Melanogenesis;Alzheimer's disease;Pathways in cancer;Colorectal cancer;Endometrial cancer;Prostate cancer;Basal cell carcinoma;

## Image Data

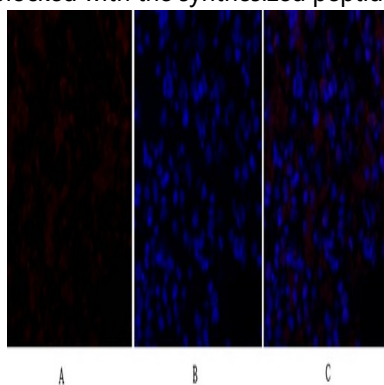


Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using GSK3 beta Antibody. The picture on the right is blocked with the synthesized peptide.

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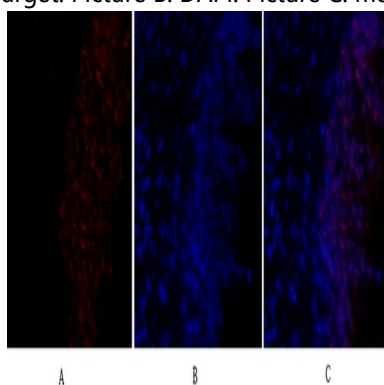


Western blot analysis of lysates from 293, COLO205, and HT29 cells, using GSK3 beta Antibody. The lane on the right is blocked with the synthesized peptide.



Immunofluorescence analysis of rat-lung tissue. 1, GSK3 $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight). 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min). 3, Picture B: DAPI (blue) 10min.

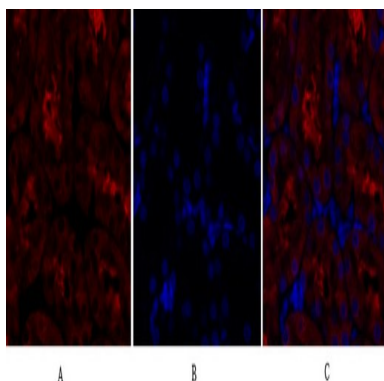
Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



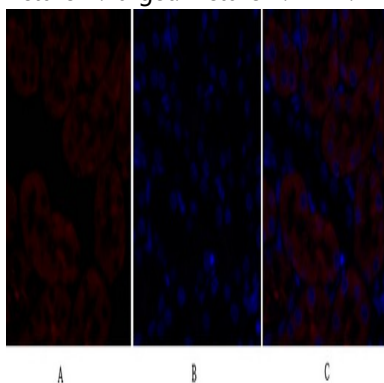
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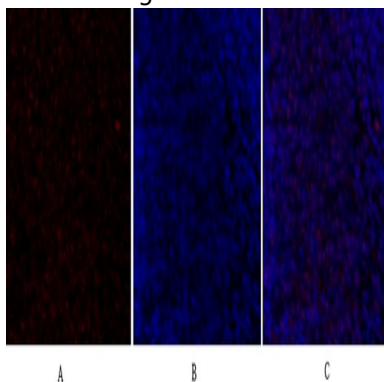
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Immunofluorescence analysis of rat-kidney tissue. 1,GSK3 $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

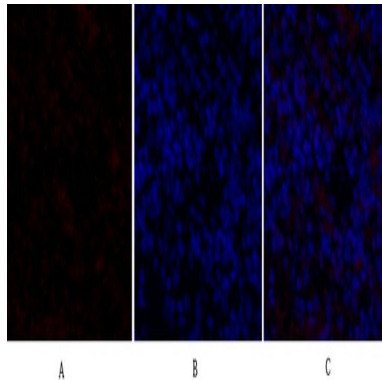


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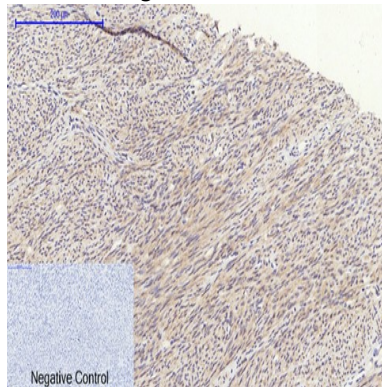


Immunofluorescence analysis of rat-spleen tissue. 1,GSK3 $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4°C,overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) .3, Picture B: DAPI (blue) 10min. Picture A:Target. Picture B: DAPI. Picture C: merge of A+B

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Immunofluorescence analysis of rat-spleen tissue. 1, GSK3 $\beta$  Polyclonal Antibody (red) was diluted at 1:200 (4°C, overnight) . 2, Cy3 labeled Secondary antibody was diluted at 1:300 (room temperature, 50min) . 3, Picture B: DAPI (blue) 10min. Picture A: Target. Picture B: DAPI. Picture C: merge of A+B



Immunohistochemical analysis of paraffin-embedded Human-uterus tissue. 1, GSK3 $\beta$  Polyclonal Antibody was diluted at 1:200 (4°C, overnight) . 2, Sodium citrate pH 6.0 was used for antibody retrieval (>98°C, 20min) . 3, Secondary antibody was diluted at 1:200 (room temperature, 30min) . Negative control was used by secondary antibody only.

## Note

For research use only.