

**Product Name:** KD-Validated Glycogen Synthase Kinase 3 Beta Recombinant Rabbit Monoclonal Antibody

**Catalog #:** KVAAb00251

For research use only.

## Summary

|                     |                                                                             |
|---------------------|-----------------------------------------------------------------------------|
| <b>Description</b>  | KO&KD-Validated antibody                                                    |
| <b>Host</b>         | Rabbit                                                                      |
| <b>Application</b>  | WB,FCM,ICC,IHC-P                                                            |
| <b>Reactivity</b>   | Human,Mouse,Rat                                                             |
| <b>Conjugation</b>  | Unconjugated                                                                |
| <b>Modification</b> | Unmodified                                                                  |
| <b>Isotype</b>      | Rabbit IgG                                                                  |
| <b>Clonality</b>    | Rabbit mAb                                                                  |
| <b>Form</b>         | Liquid                                                                      |
| <b>Storage</b>      | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| <b>Shipping</b>     | Ice bags                                                                    |
| <b>Buffer</b>       | Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.   |
| <b>Purification</b> | Affinity purification                                                       |

## Application

|                         |                                                                            |
|-------------------------|----------------------------------------------------------------------------|
| <b>Dilution Ratio</b>   | WB 1:1,000-1:5,000; FC 1:200-1:2,000; ICC 1:100-1:1,000; IHC-P 1:100-1:200 |
| <b>Molecular Weight</b> | Calculated MW: 46.7kDa                                                     |

## Antigen Information

|                          |                                                                                                                                                           |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>         | GSK3B                                                                                                                                                     |
| <b>Alternative Names</b> | Glycogen Synthase Kinase 3 Beta; Serine/Threonine-Protein Kinase GSK3B; Glycogen Synthase Kinase-3 Beta; EC 2.7.11.26; GSK-3 Beta; EC 2.7.11.1; EC 2.7.11 |
| <b>Gene ID</b>           | 2932.0                                                                                                                                                    |
| <b>SwissProt ID</b>      | P49841                                                                                                                                                    |
| <b>Immunogen</b>         | A synthesized peptide derived from human GSK3 beta                                                                                                        |

## Background

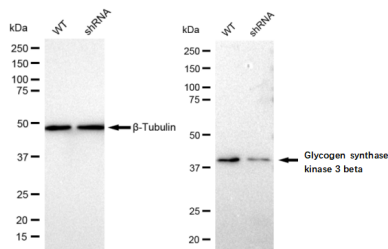
The protein encoded by this gene is a serine-threonine kinase belonging to the glycogen synthase kinase subfamily. It is a negative regulator of glucose homeostasis and is involved in energy metabolism, inflammation, ER-stress, mitochondrial

dysfunction, and apoptotic pathways. Defects in this gene have been associated with Parkinson disease and Alzheimer disease. [provided by RefSeq, Aug 2017]

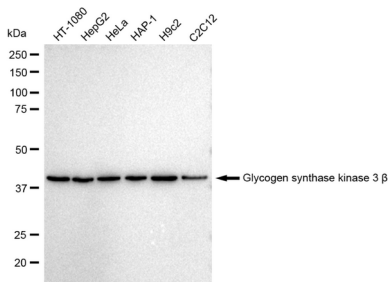
## Research Area

Neuroscience, Signal Transduction, Stem Cells, Cardiovascular, Cancer, Metabolism

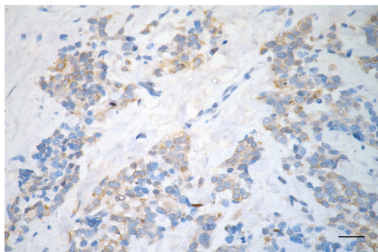
## Image Data



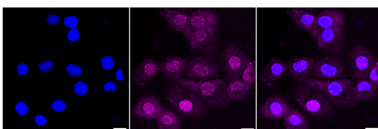
Western blotting analysis using Glycogen synthase kinase 3 beta antibody (KVA00251). Glycogen synthase kinase 3 beta expression in wild type (WT) and glycogen synthase kinase 3 beta shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with Glycogen synthase kinase 3 beta antibody (KVA00251, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



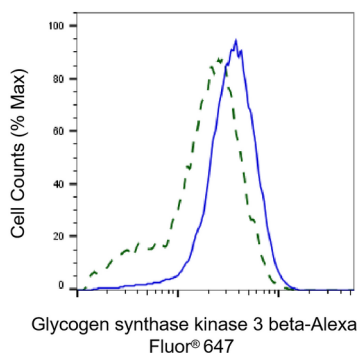
Western blotting analysis using Glycogen synthase kinase 3 beta antibody (KVA00251). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with Glycogen synthase kinase 3 beta antibody (KVA00251, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (APS0635, 1:10,000) respectively.



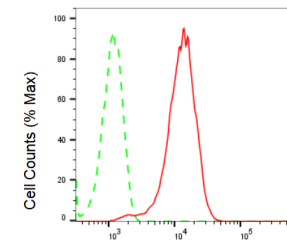
Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using glycogen synthase kinase 3 beta antibody (KVA00251, 1:200). Antigen retrieval was done in sodium citrate buffer (pH 6.0). DAB was used for detection, with hematoxylin counterstaining. Images were acquired using a Nikon Ci-L Plus microscope (40× objective). Scale bar: 25 µm.



Immunocytochemical staining of HT-1080 cells with Glycogen synthase kinase 3 beta antibody (KVA00251, 1:1,000). Nuclei were stained blue with DAPI; Glycogen synthase kinase 3 beta was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Validation of Glycogen synthase kinase 3 beta knockdown using flow cytometry. Wild-type (WT, Blue) and knockdown (KD, Green) HeLa cells were stained with Glycogen synthase kinase 3 beta antibody (KVA00251, 1:2,000) and analyzed using BD flow cytometer.



Glycogen synthase kinase 3 beta-Alexa Fluor® 647

Flow cytometric analysis of Glycogen synthase kinase 3 beta expression in HepG2 cells using Glycogen synthase kinase 3 beta antibody (KVA00251, 1:2,000). Green, isotype control; red, Glycogen synthase kinase 3 beta.