[KD Validated] Anti-GSK3B Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R020322

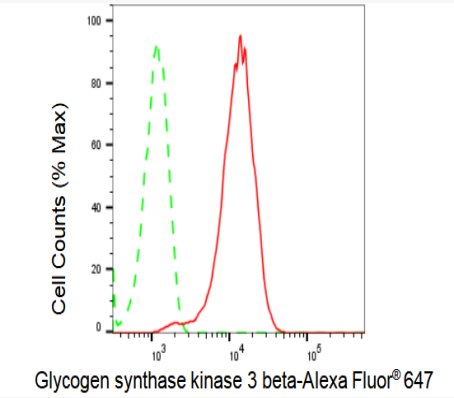
Product Information

Application	WB, FC, IF (Cell)/ICC, IHC-P/IF (Tissue-P)
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:5,000; FC 1:200~1:2,000; IF 1:100~1:1,000; IHC-P 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	28C53E23
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human GSK3 beta
Format	Affinity purified monoclonal antibody supplied in PBS with 0.02% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 12 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	[KD Validated] Anti-GSK3B Rabbit mAb [28C53E23] is for research use only and not for use in diagnostic or therapeutic procedures.

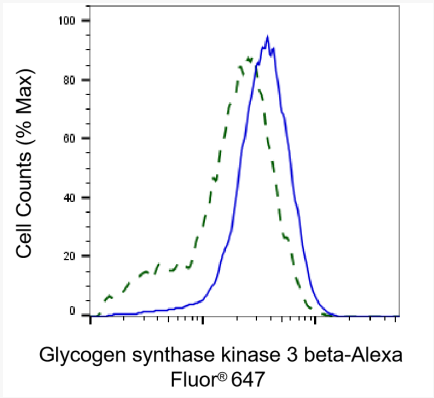
Protein Information

Synonyms	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.
Calculated MW	Calculated MW: 47 kDa, Observed MW: 40 kDa
Uniprot ID	P49841
Gene ID	2932
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]
Cellular Location	Cytoplasm. Nucleus. Cell membrane. The phosphorylated form shows localization to cytoplasm and cell membrane. The MEMO1-RHOA-DIAPH1 signaling pathway controls localization of the phosophorylated form to the cell membrane.
Tissue Location	Expressed in testis, thymus, prostate and ovary and weakly expressed in lung, brain and kidney.

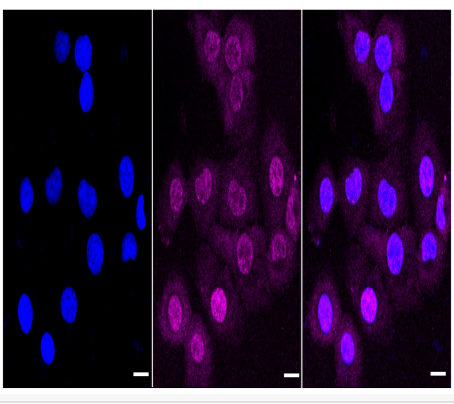
Validation Images



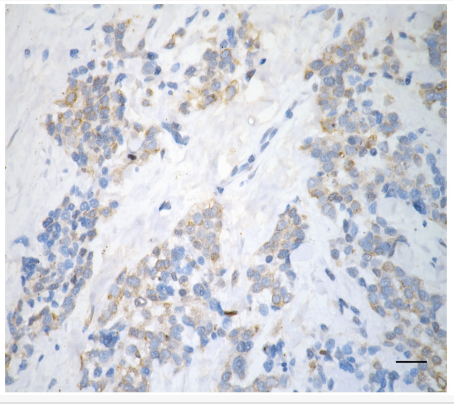
Flow cytometric analysis of Glycogen synthase kinase 3 beta expression in HepG2 cells using Glycogen synthase kinase 3 beta antibody (R020322, 1:2,000). Green, isotype control; red, Glycogen synthase kinase 3 beta.



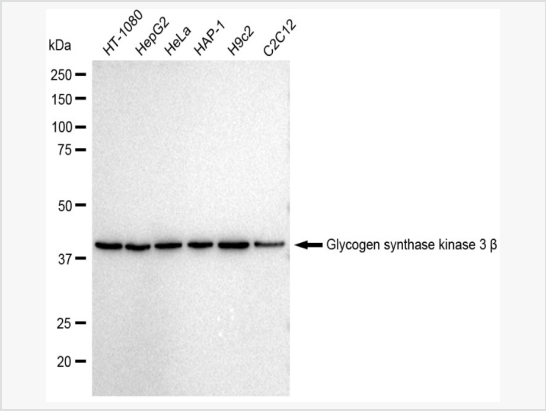
Validation of Glycogen synthase kinase 3 beta knockdown using flow cytometry. Wild-type(WT, Blue) and knockdown(KD, Green) HeLa cells were stained with Glycogen synthase kinase 3 beta antibody (R020322, 1:2,000) and analyzed using BD flow cytometer.



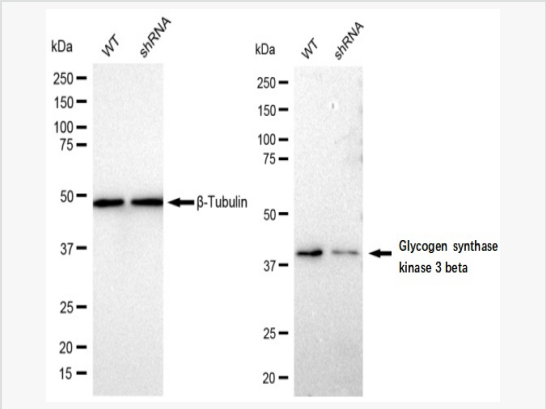
Immunocytochemical staining of HT-1080 cells with Glycogen synthase kinase 3 beta antibody (R020322, 1:1,000). Nuclei were stained blue with DAPI; Glycogen synthase kinase 3 beta was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.



Immunohistochemistry was performed on paraffin-embedded human breast carcinoma using glycogen synthase kinase 3 beta antibody (R020322, 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.



Western blotting analysis using Glycogen synthase kinase 3 beta antibody (R020322). 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 (R020322, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.



Western blotting analysis using Glycogen synthase kinase 3 beta antibody (R020322). 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 (R020322, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody (1:20,000) respectively. Image was developed using ECL Substrate Kit.