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GSK-3beta Antibody
Catalog # ASM10425

Specification

GSK-3beta Antibody - Product Information

Application	**WB**
Primary Accession	P49841
Other Accession	NP_001139628.1
Host	**Rabbit**
Reactivity	**Human, Mouse, Rat, Bovine**
Clonality	**Polyclonal**

Description
Rabbit Anti-Human GSK-3beta Polyclonal

Target/Specificity
Detects ~47kDa.

Other Names
Glycogen Synthase kinase 3 beta Antibody, GSK 3 beta Antibody, GSK 3B Antibody, GSK-3 beta Antibody, GSK3B Antibody, GSK3B_Human Antibody, GSK3beta isoform Antibody

Immunogen
Synthetic peptide corresponding to the sequence near the C-terminus of human GSK-3Beta

Purification
Protein A Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SPC-169 was sufficient for detection of GSK-beta in 20 µg of Hela cell lysate by colorimetric immunoblot analysis using goat anti-rabbit IgG:HRP as the secondary antibody.

Cellular Localization
Cytoplasm | Nucleus | Cell Membrane

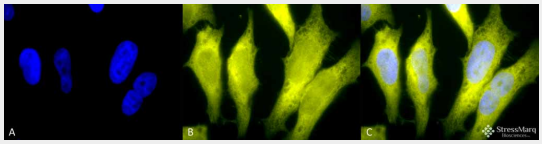
GSK-3beta Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

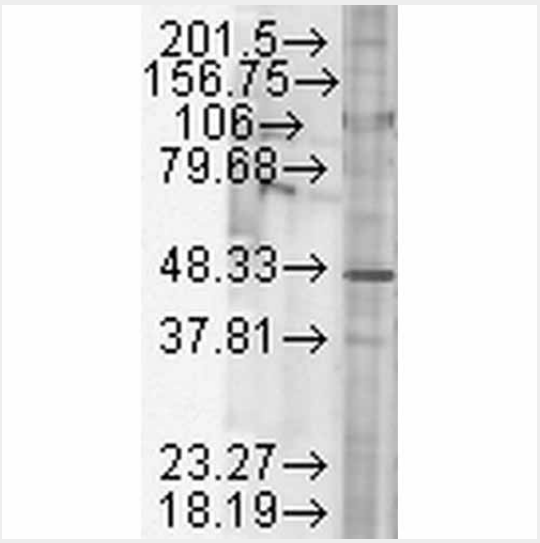
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation

- Flow Cytomety
- Cell Culture

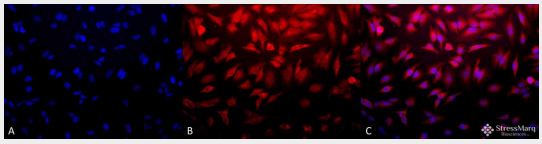
GSK-3beta Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GSK3beta Polyclonal Antibody (ASM10425). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GSK3beta Polyclonal Antibody (ASM10425) at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-GSK3beta Antibody. (C) Composite. Heat Shocked at 42°C for 1h.



Western blot analysis of Human Cell line lysates showing detection of GSK3 Beta protein using Rabbit Anti-GSK3 Beta Polyclonal Antibody (ASM10425). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-GSK3 Beta Polyclonal Antibody (ASM10425) at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-GSK3beta Polyclonal Antibody (ASM10425). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-GSK3beta Polyclonal Antibody (ASM10425) at 1:100 for 12 hours at 4°C. Secondary Antibody: R-PE Goat Anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Cytoplasm. Nucleus. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-GSK3beta Antibody. (C) Composite. Heat Shocked at 42°C for 1h.

GSK-3beta Antibody - Background

Glycogen synthase kinase 3, is a serine/threonine protein kinase that mediates the addition of

phosphate molecules onto serine and threonine amino acid residues. It has also been shown to regulate immune and migratory processes, and is tied to pathways of cell proliferation and apoptosis (1-3). In mammals, it is encoded by two genes- GSK-3Alpha and GSK-3Beta. They are structurally similar, but functionally non-identical. GSK-3Alpha is inhibited by phosphorylation at S21 by Akt and other kinases. GSK-3Beta negatively regulates cardiac hypertrophy and cardiac development through its effect on WNT signaling (4). GSK-3 alpha and GSK-3 beta share 85% amino acid identity. GSK-3 has been implicated in a number of diseases including Type II diabetes, Alzheimer's, cancer and bipolar (4, 5).

GSK-3beta Antibody - References

1. Jope R.S. (2007) Neurochem Res. 32(4-5): 577-595.
2. Wang H. (2011) Cytokind. 53(2): 130-140.
3. Mills C.N. (2011) Front Mol Neurosci. 47(4): 47.
4. Hardt S.E., Sadoshima J. (2002) Circ Res. 90(10): 1055-1063.
5. Doble D.W., Woodgett J.R. (2003) J Cell Sci. 116(Pt7): 1175-1186.