

AM06391SU-N**Monoclonal Antibody to GSK3B - Ascites****Alternate names:**GSK-3 β , GSK3-beta**Quantity:**

0.1 ml

Background:

Glycogen synthase kinase 3 (GSK-3), a serine-threonine kinase with two isoforms (alpha and beta), was originally discovered as a key enzyme in glycogen metabolism. GSK-3 was subsequently shown to function in cell division, proliferation, motility and survival. GSK-3 plays a role in a number of pathological conditions including cancer and diabetes and is increasingly seen as an important component of neurological diseases. GSK-3 phosphorylates tau and presenilin-1, which are involved in the development of Alzheimer's disease. Both isoforms of GSK-3 are ubiquitously expressed, although particularly high levels of GSK-3beta are found in the brain where it is involved in synaptic plasticity, possibly via regulation of NMDA receptor trafficking. GSK-3 phosphorylates over 40 different substrates including signaling proteins, transcription factors and structural proteins, and is part of the signal transduction cascade of a large number of growth factors and cytokines. The activity of GSK is regulated by phosphorylation (Akt: Akt-mediated phosphorylation at Ser21 of GSK-3 α and Ser9 of GSK-3 β , S6K, RSK, PKA and PKC), dephosphorylation (PP1 and PP2A), and by binding to protein complexes (with beta-catenin, axin, CK1 and the APC complex).

GenelD:[2942](#)**Host / Isotype:**

Mouse / IgG2a

Clone:

3D10

Immunogen:

Purified recombinant fragment of human GSK3B expressed in E. Coli.

Format:**State:** Ascitic fluid containing 0.03% sodium azide.**Applications:****Western Blot:** 1/500 - 1/2000.**Immunohistochemistry on paraffin sections:** 1/200 - 1/1000.**Immunofluorescence:** 1/200 - 1/1000.**Flow cytometry:** 1/200 - 1/400.**ELISA:** 1/10000.

Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Molecular Weight:

46 kDa

Specificity:

This antibody reacts to GSK3B.

Species Reactivity:**Tested:** Human, Rat, Mouse and Monkey.**Storage:**

Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

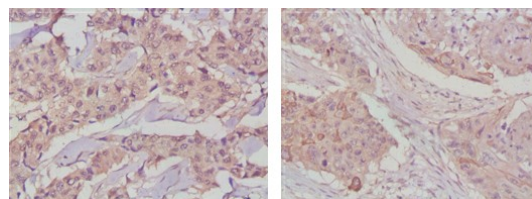
Shelf life: one year from despatch.

General Readings:

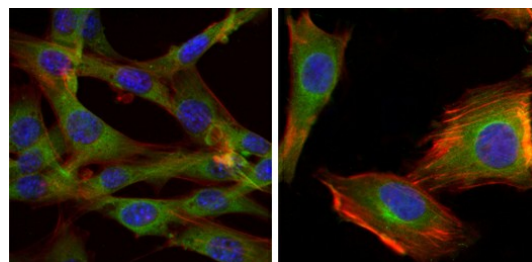
1. EMBO J. 1998 Mar 2;17(5):1371-84.
2. Curr Biol. 2001 Jan 9;11(1):44-9.
3. Cancer Lett. 2003 Sep 25;199(2):201-8.

Pictures:

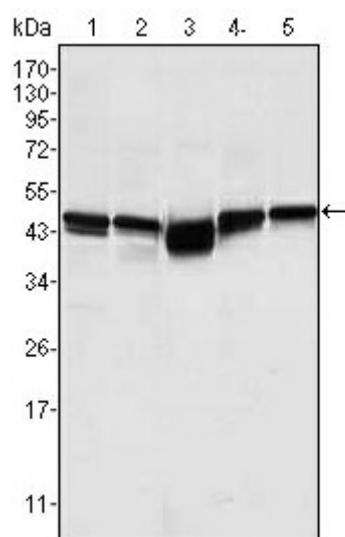
Immunohistochemical analysis of paraffin-embedded human lung cancer (left) and breast cancer tissues (right) using GSK3B mouse mAb with DAB staining.



Immunofluorescence analysis of NIH/3T3 (left) and U251 (right) cells using GSK3B mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.



Western blot analysis using GSK3B mouse mAb against A549 (1), K562 (2), PC-12 (3), NIH/3T3 (4), and HEK293 (5) cell lysate.



Flow cytometric analysis of Hela cells using GSK3B mouse mAb (green) and negative control (purple).

