SANTA CRUZ BIOTECHNOLOGY, INC.

GSK-3β (h): 293T Lysate: sc-176265

BACKGROUND

Glycogen synthase kinase-3, or GSK-3, is a serine/threonine, proline-directed kinase involved in a diverse array of signaling pathways, including glycogen synthesis and cellular adhesion, and has been implicated in Alzheimer's disease. Two forms of GSK-3, designated GSK-3α and GSK-3β, have been identified and differ in their subcellular localization. Tau, a microtubule-binding protein which serves to stabilize microtubules in growing axons, is found to be hyperphosphorylated in paired helical filaments (PHF), the major fibrous component of neurofibrillary lesions associated with Alzheimer's disease. Hyperphosphorylation of Tau is thought to be the critical event leading to the assembly of PHF. Six Tau protein isoforms have been identified, all of which are phosphorylated by GSK-3. This presents the possibility that miscues in GSK-3 signaling contribute to the onset of Alzheimer's disease.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: GSK3B (human) mapping to 3q13.33.

PRODUCT

GSK-3β (h): 293T Lysate represents a lysate of human GSK-3β transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

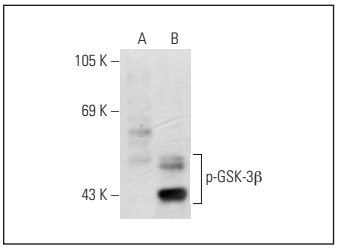
APPLICATIONS

GSK-3β (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive GSK-3β antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

GSK-3β (3A8): sc-81495 is recommended as a positive control antibody for Western Blot analysis of enhanced human GSK-3β expression in GSK-3β transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

DATA



p-GSK-3β (3A8): sc-81495. Western blot analysis of GSK-3β phosphorylation in non-transfected: sc-117752 (**A**) and human GSK-3β transfected: sc-176265 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.