



GAPDH (h): 293 Lysate: sc-110976

BACKGROUND

Glyceraldehyde-3-phosphate dehydrogenase (GAPDH), also called uracil DNA glycosylase, catalyzes the reversible oxidative phosphorylation of glyceraldehyde-3-phosphate in the presence of inorganic phosphate and nicotinamide adenine dinucleotide (NAD), an important energy-yielding step in carbohydrate metabolism. While GAPDH has long been recognized as playing an integral role in glycolysis, additional functions of GAPDH include acting as a uracil DNA glycosylase, activating transcription, binding RNA and involvement in nuclear RNA export, DNA replication and DNA repair. Expression of GAPDH is upregulated in liver, lung and prostate cancers. GAPDH translocates to the nucleus during apoptosis. GAPDH complexes with neuronal proteins implicated in human neuro-degenerative disorders including the β -Amyloid precursor, Huntingtin and other triplet repeat neuronal disorder proteins.

REFERENCES

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4. Sirover, M.A. 1999. New insights into an old protein: the functional diversity of mammalian glyceraldehyde-3-phosphate dehydrogenase. *Biochim. Biophys. Acta* 1432: 159-184.
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7. Tarbe, N., et al. 2001. Transcriptional profiling of cell lines derived from an orthotopic pancreatic tumor model reveals metastasis-associated genes. *Anticancer Res.* 5: 3221-3228.
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CHROMOSOMAL LOCATION

Genetic locus: GAPDH (human) mapping to 12p13.31.

PRODUCT

GAPDH (h): 293 Lysate represents a lysate of human GAPDH transfected 293 cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

RESEARCH USE

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

APPLICATIONS

GAPDH (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive GAPDH antibodies. Recommended use: 10-20 μ l per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

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.

PROTOCOLS

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