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NRK1 (m): 293T Lysate: sc-122131

BACKGROUND

Nicotinamide adenine dinucleotide (NAD⁺) is an essential cofactor involved in fundamental processes in cell metabolism. NRK1 (Nicotinamide riboside kinase 1), also known as Ribosylnicotinamide kinase 1, is a 199 amino acid enzyme is involved in the synthesis of NAD⁺ through nicotinamide mononucleotide using nicotinamide riboside as the precursor. Nicotinamide riboside has been identified as a nutrient in milk, suggesting that it is a useful compound for elevating the NAD⁺ levels in humans. NRK1 also phosphorylates the anti-cancer drugs tiazofurin and 3-deazaguanosine, which converts them into toxic NAD⁺ analogs and leads to the inhibition of guanine nucleotide biosynthesis. There are two isoforms of NRK1 that are produced as a result of alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BC016495 (mouse) mapping to 19 B.

PRODUCT

NRK1 (m): 293T Lysate represents a lysate of mouse NRK1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

NRK1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive NRK1 antibodies. Recommended use: 10-20 µl per lane.

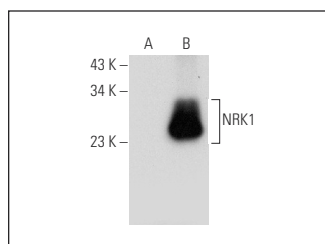
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

NRK1 (F-8): sc-398852 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse NRK1 expression in NRK1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



NRK1 (F-8): sc-398852. Western blot analysis of NRK1 expression in non-transfected: sc-117752 (A) and mouse NRK1 transfected: sc-122131 (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.