NMNAT-1 (B-7): sc-271557

BACKGROUND
Nicotinamide adenine dinucleotide (NMNAT) is an essential cofactor involved in fundamental processes in cell metabolism. NMNAT plays a key role in NAD+ biosynthesis, catalyzing the condensation of nicotinamide mononucleotide and ATP, and yielding NAD+ and pyrophosphate. NMNAT appears to be a substrate of nuclear kinases and contains at least three potential phosphorylation sites. The interaction of NMNAT with nuclear proteins is likely to be modulated by phosphorylation. NMNAT is widely expressed with highest levels in skeletal muscle, heart, liver and kidney.

REFERENCES

CHROMOSOMAL LOCATION
Genetic locus: NMNAT1 (human) mapping to 1p36.22.

SOURCE
NMNAT-1 (B-7) is a mouse monoclonal antibody raised against amino acids 171-279 mapping at the C-terminus of NMNAT-1 of human origin.

PRODUCT
Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

NMNAT-1 (B-7) is available conjugated to agarose (sc-271557 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271557 HRP), 200 µg/ml, for WB, HClP and ELISA; to either phycoerythrin (sc-271577 PE), fluorescein (sc-271577 FITC), Alexa Fluor® 488 (sc-271577 AF488), Alexa Fluor® 546 (sc-271577 AF546), Alexa Fluor® 594 (sc-271577 AF594) or Alexa Fluor® 647 (sc-271577 AF647), 200 µg/ml, for WB (RGB), IF, HClP and FCM; and to either Alexa Fluor® 680 (sc-271577 AF680) or Alexa Fluor® 790 (sc-271577 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE
Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS
NMNAT-1 (B-7) is recommended for detection of NMNAT-1 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for NMNAT-1 siRNA (h): sc-45502, NMNAT-1 shRNA Plasmid (h): sc-45502-SH and NMNAT-1 shRNA (h) Lentiviral Particles: sc-45502-V.

Suitable Molecular Weight of NMNAT-1: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, JAR cell lysate: sc-2276 or Hep G2 nuclear extract: sc-364819.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG 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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA
NMNAT-1 (B-7): sc-271557. Western blot analysis of NMNAT-1 expression in Hep G2 nuclear extract (A) and JAR (B) and HeLa (C) whole cell lysates.

SELECT PRODUCT CITATIONS

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