SANTA CRUZ BIOTECHNOLOGY, INC.

NSE4A (N-20): sc-248108

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

NSE4A, also known as NSMCE4A (non-structural maintenance of chromosomes element 4 homolog A), is a 385 amino acid protein that belongs to the NSE4 family and exists as two alternatively spliced isoforms. Upon DNA damage, NSE4A gets phosphorylated most likely by Atm or ATR. The gene that encodes NSE4A consists of approximately 18,141 bases and maps to human chromosome 10q26.13. Spanning nearly 135 million base pairs and encoding nearly 1,200 genes, chromosome 10 makes up approximately 4.5% of the human genome. Several protein-coding genes, including those that encode chemokines, cadherins, excision repair proteins, early growth response factors (Egrs) and fibroblast growth receptors (FGFRs), are located on chromosome 10. Defects in some of the genes that map to chromosome 10 are associated with Charcot-Marie-Tooth disease, Jackson-Weiss syndrome, Usher syndrome, nonsyndromatic deafness, Wolman's syndrome, Cowden syndrome, Cockayne syndrome, multiple endocrine neoplasia type 2 and porphyria.

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CHROMOSOMAL LOCATION

Genetic locus: NSMCE4A (human) mapping to 10q26.13.

SOURCE

NSE4A (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of NSE4A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-248108 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

NSE4A (N-20) is recommended for detection of NSE4A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with NSE1 or NSE2.

Suitable for use as control antibody for NSE4A siRNA (h): sc-90496, NSE4A shRNA Plasmid (h): sc-90496-SH and NSE4A shRNA (h) Lentiviral Particles: sc-90496-V.

Molecular Weight of NSE4A isoforms: 44/36 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. 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 or our catalog for detailed protocols and support products.