SANTA CRUZ BIOTECHNOLOGY, INC.

FUS-2 (S-15): sc-54386

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FUS-2 is a 314 amino acid protein encoded by the human gene NAT6. FUS-2 belongs to the acetyltransferase family and contains one N-acetyltransferase domain. Acetyltransferases are essential enzymes for a wide variety of cellular processes and mutations in acetyltransferase genes have been associated with the development of certain cancers. FUS-2 is found in the cells cytoplasm and seems to be involved in N-acetylation. FUS-2 will act on peptides with an N-terminal Met followed by Asp, Glu or Asn. It is also believed FUS-2 can also act as a tumor suppressor. FUS-2 has NAT activity but not histone acetyltransferase activity. It uses a binary ping-pong process involving the formation of a covalent NAT/acetyl-coA intermediate, whereby acetyl-coA binds to the nucleophile in the active site of the enzyme before the acetyl group is transferred to the substrate by nucleophilic attack.

REFERENCES

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3. Zegerman, P., Bannister, A.J. and Kouzarides, T. 2000. The putative tumour suppressor FUS-2 is an N-acetyltransferase. Oncogene 19: 161-163.
4. Polevoda, B. and Sherman, F. 2003. Composition and function of the eukaryotic N-terminal acetyltransferase subunits. Biochem. Biophys. Res. Commun. 308: 1-11.
5. Duh, F.M., Fivash, M., Moody, M., Li Lung, M., Guo, X., Stanbridge, E., Dean, M., Voevoda, M., Hu, L.F., Kashuba, V., Zabarovsky, E.R., Qian, C.N., Godbole, S., Tean Teh, B. and Lerman, M.I. 2004. Characterization of a new SNP c767A/T (Arg222Trp) in the candidate TSG FUS-2 on human chromosome 3p21.3: prevalence in Asian populations and analysis of association with nasopharyngeal cancer. Mol. Cell. Probes. 18: 39-44.
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CHROMOSOMAL LOCATION

Genetic locus: NAT6 (human) mapping to 3p21.3; Nat6 (mouse) mapping to 9 F1.

SOURCE

FUS-2 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of FUS-2 of mouse origin.

STORAGE

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

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-54386 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FUS-2 (S-15) is recommended for detection of FUS-2 of mouse, rat and 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).

Suitable for use as control antibody for FUS-2 siRNA (h): sc-62358, FUS-2 siRNA (m): sc-62359, FUS-2 shRNA Plasmid (h): sc-62358-SH, FUS-2 shRNA Plasmid (m): sc-62359-SH, FUS-2 shRNA (h) Lentiviral Particles: sc-62358-V and FUS-2 shRNA (m) Lentiviral Particles: sc-62359-V.

Molecular Weight of FUS-2: 34 kDa.

Positive Controls: A-10 cell lysate: sc-3806, NIH/3T3 whole cell lysate: sc-2210 or mouse heart extract: sc-2254.

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.

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.