SANTA CRUZ BIOTECHNOLOGY, INC.

ZMYM5 (N-18): sc-84674

BACKGROUND

Zinc-finger proteins contain DNA-binding domains and have a wide variety of functions, most of which encompass some form of transcriptional activation or repression. ZMYM5 (zinc finger, MYM-type 5), also known as ZNF237, HSPC050 or ZNF198L1, is a 669 amino acid nuclear protein that contains 4 MYM-type zinc fingers. ZMYM5 is thought to be a transcriptional regulator that interacts with ERM (also known as ETV5 or ETS translocation variant 5) and represses transcript of PS1 (human presenilin 1). Single nucleotide mutations at positions 112 and 114 abolish the ability of ZMYM5 to interact with ERM, though only the mutation at 112 abolishes the repression of PS1 expression, and a mutation at position 120 has been associated up increased PS1 repression activity. There are five isoforms of ZMYM5 that are produced as a result of alternative splicing events. The gene encoding ZMYM5 maps to chromosome 13q12.11.

REFERENCES

1. Sohal, J., et al. 2000. Cloning of ZNF237, a novel member of the MYM gene family that maps to human chromosome 13q11→q12. Cytogenet. Cell Genet. 89: 24-28.
2. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. Nature 428: 522-528.
3. Hecker, C.M., et al. 2006. Specification of SUMO1- and SUMO2-interacting motifs. J. Biol. Chem. 281: 16117-16127.
4. Pastorcic, M. and Das, H.K. 2007. Analysis of transcriptional modulation of the presenilin 1 gene promoter by ZNF237, a candidate binding partner of the Ets transcription factor ERM. Brain Res. 1128: 21-32.
5. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. Hum. Mol. Genet. 16: 2004-2010.
6. Lee, S. and Das, H.K. 2010. Transcriptional regulation of the presenilin-1 gene controls gamma-secretase activity. Front. Biosci. 2: 22-35.
7. Jinawath, N., et al. 2011. Mosaic trisomy 13: understanding origin using SNP array. J. Med. Genet. 48: 323-326.

CHROMOSOMAL LOCATION

Genetic locus: ZMYM5 (human) mapping to 13q12.11.

SOURCE

ZMYM5 (N-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of ZMYM5 of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-84674 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

ZMYM5 (N-18) is recommended for detection of ZMYM5 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).

Suitable for use as control antibody for ZMYM5 siRNA (h): sc-76973, ZMYM5 shRNA Plasmid (h): sc-76973-SH and ZMYM5 shRNA (h) Lentiviral Particles: sc-76973-V.

Molecular Weight of ZMYM5 isoforms: 75/56/42/23 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (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.

PROTOCOLS

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