

ZMYM3 (X-20): sc-130039

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. ZMYM3 (zinc finger MYM-type protein 3), also known as ZNF261 (zinc finger protein 261), XFIM, DXS6673E or MYM, is a 1,370 amino acid nuclear protein that contains nine MYM-type zinc fingers. Expressed in a variety of tissues, including heart, muscle and brain, ZMYM3 is thought to function as part of a histone deacetylase-containing complex that contains other proteins, such as HDAC1 and HDAC2, and may play a role in gene silencing through the modification of chromatin structure. Defects in the gene encoding ZMYM3 that lead to chromosomal translocations may be a cause of X-linked mental retardation. Two isoforms of ZMYM3 exist due to alternative splicing events.

REFERENCES

1. van der Maarel, S.M., et al. 1996. Cloning and characterization of DXS6673E, a candidate gene for X-linked mental retardation in Xq13.1. *Hum. Mol. Genet.* 5: 887-897.
2. Smedley, D., et al. 1999. Cloning and mapping of members of the MYM family. *Genomics* 60: 244-247.
3. Scheer, M.P., et al. 2000. DXS6673E encodes a predominantly nuclear protein, and its mouse ortholog DXHXS6673E is alternatively spliced in a developmental- and tissue-specific manner. *Genomics* 63: 123-132.
4. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 300061. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
5. Beever, C., et al. 2003. Methylation of ZNF261 as an assay for determining X chromosome inactivation patterns. *Am. J. Med. Genet. A* 120A: 439-441.
6. Hakimi, M.A., et al. 2003. A candidate X-linked mental retardation gene is a component of a new family of histone deacetylase-containing complexes. *J. Biol. Chem.* 278: 7234-7239.

CHROMOSOMAL LOCATION

Genetic locus: ZMYM3 (human) mapping to Xq13.1; Zmym3 (mouse) mapping to X D.

SOURCE

ZMYM3 (X-20) is a purified rabbit polyclonal antibody raised against ZMYM3 of human origin.

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.

PRODUCT

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

APPLICATIONS

ZMYM3 (X-20) is recommended for detection of ZMYM3 of mouse, rat, human and dog origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

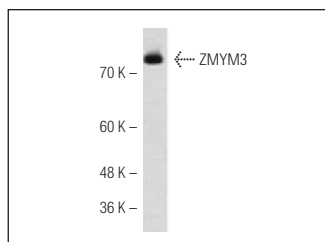
Suitable for use as control antibody for ZMYM3 siRNA (h): sc-91199, ZMYM3 siRNA (m): sc-155631, ZMYM3 shRNA Plasmid (h): sc-91199-SH, ZMYM3 shRNA Plasmid (m): sc-155631-SH, ZMYM3 shRNA (h) Lentiviral Particles: sc-91199-V and ZMYM3 shRNA (m) Lentiviral Particles: sc-155631-V.

Molecular Weight of ZMYM3: 152 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



ZMYM3 (X-20): sc-130039. Western blot analysis of ZMYM3 expression in transfected 293T whole cell lysate.

RESEARCH USE

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