## SANTA CRUZ BIOTECHNOLOGY, INC.

# MYT1L (C-15): sc-168686



BACKGROUND

MYT1L (myelin transcription factor 1-like), also known as NZF1, is a 1,186 amino acid nuclear protein that is thought to be involved in the development of neurons and oligodendrogalia in the central nervous system. MYT1L is also implicated in neuronal differentiation and exists as four alternatively spliced isoforms. Containing six C2HC-type zinc fingers, MYT1L is encoded by a gene that maps to human chromosome 2p25.3. Chromosome 2 consists of 237 million bases, encodes over 1,400 genes and makes up approximately 8% of the human genome. A number of genetic diseases are linked to genes on chromosome 2. Harlequin icthyosis, a rare and morbid skin deformity, is associated with mutations in the ABCA12 gene. The lipid metabolic disorder sitosterolemia is associated with ABCG5 and ABCG8. An extremely rare recessive genetic disorder, Alström syndrome, is due to mutations in the ALMS1 gene.

## REFERENCES

- Kim, J.G., et al. 1997. Myelin transcription factor 1 (Myt1) of the oligodendrocyte lineage, along with a closely related CCHC zinc finger, is expressed in developing neurons in the mammalian central nervous system. J. Neurosci. Res. 50: 272-290.
- 2. Patel, S.B., et al. 1998. Mapping a gene involved in regulating dietary cholesterol absorption. The sitosterolemia locus is found at chromosome 2p21. J. Clin. Invest. 102: 1041-1044.
- Zumsteg, U., et al. 2000. Alstrom syndrome: confirmation of linkage to chromosome 2p12-13 and phenotypic heterogeneity in three affected sibs. J. Med. Genet. 37: E8.
- Shulenin, S., et al. 2001. An ATP-binding cassette gene (ABCG5) from the ABCG (White) gene subfamily maps to human chromosome 2p21 in the region of the Sitosterolemia locus. Cytogenet. Cell Genet. 92: 204-208.
- Hearn, T., et al. 2002. Mutation of ALMS1, a large gene with a tandem repeat encoding 47 amino acids, causes Alström syndrome. Nat. Genet. 31: 79-83.
- Kelsell, D.P., et al. 2005. Mutations in ABCA12 underlie the severe congenital skin disease harlequin ichthyosis. Am. J. Hum. Genet. 76: 794-803.
- 7. Pang, Z.P., et al. 2011. Induction of human neuronal cells by defined transcription factors. Nature 476: 220-223.

#### CHROMOSOMAL LOCATION

Genetic locus: MYT1L (human) mapping to 2p25.3; Myt1I (mouse) mapping to 12 A2.

### SOURCE

MYT1L (C-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MYT1L of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-168686 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

MYT1L (C-15) is recommended for detection of MYT1L 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); non cross-reactive with MYT1.

MYT1L (C-15) is also recommended for detection of MYT1L in additional species, including equine, canine, porcine and avian.

Suitable for use as control antibody for MYT1L siRNA (h): sc-94273, MYT1L siRNA (m): sc-149770, MYT1L shRNA Plasmid (h): sc-94273-SH, MYT1L shRNA Plasmid (m): sc-149770-SH, MYT1L shRNA (h) Lentiviral Particles: sc-94273-V and MYT1L shRNA (m) Lentiviral Particles: sc-149770-V.

Molecular Weight of MYT1L isoforms: 133/127/21/133 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) Immunofluo-rescence: 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.