SANTA CRUZ BIOTECHNOLOGY, INC.

FOXI3 (V-25): sc-133755

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The Forkhead-box (FOX) genes comprise a superfamily of at least 43 members that encode proteins which are involved in transcriptional regulation and may be associated with the pathogenesis of various cancers. FOXI3 (forkhead box I3) is a member of the FOX family which contains one forkhead DNA-binding domain. FOXI3 localizes to the nucleus where it is thought to function as a transcription factor that can bind to DNA via the forkhead domain. The gene that encodes FOXI3 maps to human chromosome 2, the second largest human chromosome consisting of 237 million bases encoding over 1,400 genes. 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

1. Ijdo, J.W., et al. 1991. Origin of human chromosome 2: an ancestral telomere-telomere fusion. Proc. Natl. Acad. Sci. USA 88: 9051-9055.
2. Avarello, R., et al. 1992. Evidence for an ancestral alphoid domain on the long arm of human chromosome 2. Hum. Genet. 89: 247-249.
3. Hillier, L.W., et al. 2005. Generation and annotation of the DNA sequences of human chromosomes 2 and 4. Nature 434: 724-731.
4. Thomas, A.C., et al. 2006. ABCA12 is the major harlequin ichthyosis gene. J. Invest. Dermatol. 126: 2408-2413.
5. Akiyama, M., et al. 2007. Compound heterozygous ABCA12 mutations including a novel nonsense mutation underlie harlequin ichthyosis. Dermatology 215: 155-159.
6. Marshall, J.D., et al. 2007. Alström syndrome. Eur. J. Hum. Genet. 15: 1193-1202.
7. Marshall, J.D., et al. 2007. Spectrum of ALMS1 variants and evaluation of genotype-phenotype correlations in Alström syndrome. Hum. Mutat. 28: 1114-1123.

CHROMOSOMAL LOCATION

Genetic locus: FOXI3 (human) mapping to 2p11.2.

SOURCE

FOXI3 (V-25) is a Protein A purified rabbit polyclonal antibody raised against synthetic FOXI3 peptide of human origin.

PRODUCT

Each vial contains 100 µg IgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

STORAGE

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

APPLICATIONS

FOXI3 (V-25) is recommended for detection of FOXI3 of human 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 FOXI3 siRNA (h): sc-94550, FOXI3 shRNA Plasmid (h): sc-94550-SH and FOXI3 shRNA (h) Lentiviral Particles: sc-94550-V.

Molecular Weight of FOXI3: 43 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204.

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).

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.