SANTA CRUZ BIOTECHNOLOGY, INC.

DHRSX (C-15): sc-83878

BACKGROUND

DHRSX (dehydrogenase/reductase SDR family member on chromosome X) is a 330 amino acid protein belonging to the short-chain dehydrogenases/reductases (SDR) family. Widely expressed, DHRSX is an oxidoreductase that contains a coenzyme binding site and a substrate binding site, indicating a possible role in cellular metabolism. The gene that encodes DHRSX is located in the pseudoautosomal region 1 (PAR1) of X and Y chromosomes. The X and Y chromosomes are the human sex chromosomes. Chromosome X consists of about 153 million base pairs and nearly 1,000 genes. The combination of a X and Y chromosome lead to normal male development while two copies of X lead to normal female development. There are a number of conditions related to an unusual number and combination of sex chromosomes being inherited, including Turner's syndrome, Klinefelter's syndrome and Triple X syndrome. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently as males carry a single X chromosome.

REFERENCES

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2. Gianfrancesco, F., et al. 2001. Differential divergence of three human pseudoautosomal genes and their mouse homologs: implications for sex chromosome evolution. Genome Res. 11: 2095-2100.
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4. Ozçelik, T. 2002. Uncovering the complex mysteries of mosaicism. Nature 417: 588.
5. Muntoni, F., et al. 2003. Dystrophin and mutations: one gene, several proteins, multiple phenotypes. Lancet Neurol. 2: 731-740.
6. Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
7. Bojesen, A., et al. 2006. The metabolic syndrome is frequent in Klinefelter's syndrome and is associated with abdominal obesity and hypogonadism. Diabetes Care 29: 1591-1598.
8. Hayashi, T., et al. 2006. Novel form of a single X-linked visual pigment gene in a unique dichromatic color-vision defect. Vis. Neurosci. 23: 411-417.
9. Augui, S., et al. 2007. Sensing X chromosome pairs before X inactivation via a novel X-pairing region of the Xic. Science. 318: 1632-1636.

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.

CHROMOSOMAL LOCATION

Genetic locus: DHRSX (human) mapping to Xp22.33/Yp11.31.

SOURCE

DHRSX (C-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within an internal region of DHRSX 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-83878 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

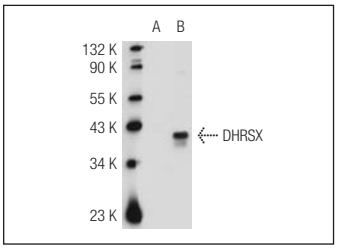
DHRSX (C-15) is recommended for detection of DHRSX of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for DHRSX siRNA (h): sc-91577, DHRSX shRNA Plasmid (h): sc-91577-SH and DHRSX shRNA (h) Lentiviral Particles: sc-91577-V.

Molecular Weight of DHRSX: 36 kDa.

Positive Controls: DHRSX (h4): 293T Lysate: sc-158448 or Hep G2 cell lysate: sc-2227.

DATA



DHRSX (C-15): sc-83878. Western blot analysis of DHRSX expression in non-transfected: sc-117752 (**A**) and human DHRSX transfected: sc-158448 (**B**) 293T whole cell lysates.

RESEARCH USE

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