SANTA CRUZ BIOTECHNOLOGY, INC.

CSAGE (S-13): sc-139203

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

CSAGE (chondrosarcoma associated gene 1), also known as CT24.1 (cancer/testis antigen 24.1) or CSAG1, is a 78 amino acid protein expressed in melanoma, cartilage, chondrosarcoma and testis. Existing as two alternatively spliced isoforms, CSAGE is encoded by a gene that maps to human chromosome Xq28. 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

1. 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.
2. Bernardino-Sgherri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. Cytogenet. Genome Res. 99: 85-91.
3. Lin, C., et al. 2002. Cancer/testis antigen CSAGE is concurrently expressed with MAGE in chondrosarcoma. Gene 285: 269-278.
4. Deeb, S.S. 2005. The molecular basis of variation in human color vision. Clin. Genet. 67: 369-377.
5. Maggio, M.C., et al. 2007. Polycystic ovary and gonadoblastoma in Turner's syndrome. Minerva Pediatr. 59: 397-401.
6. Helderman-van den Enden, A.T., et al. 2009. Recurrence risk due to germ line mosaicism: Duchenne and Becker muscular dystrophy. Clin. Genet. 75: 465-472.
7. Kasper, C.K., et al. 2009. Mosaicism and haemophilia. Haemophilia 15: 1181-1186.

CHROMOSOMAL LOCATION

Genetic locus: CSAG1/CSAG2 (human) mapping to Xq28.

SOURCE

CSAGE (S-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CSAGE 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 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-139203 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CSAGE (S-13) is recommended for detection of CSAGE and TRAG-3 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).

Molecular Weight of CSAGE isoforms: 9/8 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) Immunofluorescence: 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.

RESEARCH USE

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