SANTA CRUZ BIOTECHNOLOGY, INC.

TEX29 (E-20): sc-84006

BACKGROUND

Comprising nearly 4% of human DNA, chromosome 13 contains around 114 million base pairs and 400 genes. Key tumor suppressor genes on chromosome 13 include the breast cancer susceptibility gene, BRCA2, and the RB1 (retinoblastoma) gene. RB1 encodes a crucial tumor suppressor protein which, when defective, leads to malignant growth in the retina and has been implicated in a variety of other cancers. The gene SLITRK1, which is associated with Tourette syndrome, is on chromosome 13. As with most chromosomes, polysomy of part or all of chromosome 13 is deleterious to development and decreases the odds of survival. Trisomy 13, also known as Patau syndrome, is quite deadly and the few who survive past one year suffer from permanent neurologic defects, difficulty eating and vulnerability to serious respiratory infections. The TEX29 gene product has been provisionally designated TEX29 pending further characterization.

REFERENCES

1. Dunham, A., et al. 2004. The DNA sequence and analysis of human chromosome 13. Nature 428: 522-528.
2. Deng, H., et al. 2006. Examination of the SLITRK1 gene in Caucasian patients with Tourette syndrome. Acta Neurol. Scand. 114: 400-402.
3. Giacinti, C., et al. 2006. RB and cell cycle progression. Oncogene 25: 5220-5227.
4. Grados, M.A., et al. 2006. A new gene for Tourette's syndrome: a window into causal mechanisms? Trends Genet. 22: 291-293.
5. Bugge, M., et al. 2007. Non-disjunction of chromosome 13. Hum. Mol. Genet. 16: 2004-2010.
6. Hsu, H.F., et al. 2007. Variable expressivity in Patau syndrome is not all related to trisomy 13 mosaicism. Am. J. Med. Genet. A 143: 1739-1748.
7. Hall, H.E., et al. 2007. The origin of trisomy 13. Am. J. Med. Genet. A 143: 2242-2248.
8. Thorslund, T. and West, S.C. 2007. BRCA2: a universal recombinase regulator. Oncogene 26: 7720-7730.
9. Hassler, M., et al. 2007. Crystal structure of the retinoblastoma protein N domain provides insight into tumor suppression, ligand interaction and holoprotein architecture. Mol. Cell 28: 371-385.

CHROMOSOMAL LOCATION

Genetic locus: TEX29 (human) mapping to 13q34.

SOURCE

TEX29 (E-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TEX29 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-84006 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

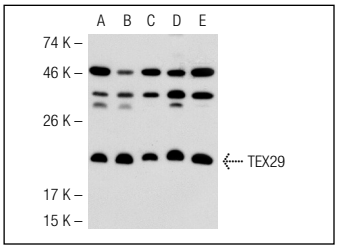
TEX29 (E-20) is recommended for detection of TEX29 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 TEX29 siRNA (h): sc-105138, TEX29 shRNA Plasmid (h): sc-105138-SH and TEX29 shRNA (h) Lentiviral Particles: sc-105138-V.

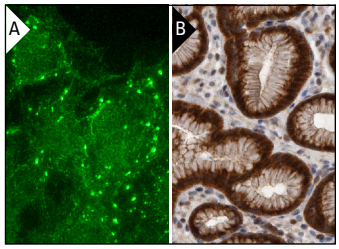
Molecular Weight of TEX29: 17 kDa.

Positive Controls: PC-3 cell lysate: sc-2220, Hep G2 cell lysate: sc-2227 or DU 145 cell lysate: sc-2268.

DATA



TEX29 (E-20): sc-84006. Western blot analysis of TEX29 expression in Hep G2 (**A**), OV-90 (**B**), PC-3 (**C**), DU 145 (**D**) and ES-2 (**E**) whole cell lysates.



TEX29 (E-20): sc-84006. Immunofluorescence staining of formalin-fixed Hep G2 cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach showing cytolasmic staining of glandular cells at high magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

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.