

FAM123A (h): 293T Lysate: sc-115267

BACKGROUND

The FAM123A (family with sequence similarity 123A) gene encodes for a 671 amino acid protein. There are two isoforms of FAM123A that exist as a result of alternative splicing events. The gene encoding FAM123A is located on chromosome 13, which comprises nearly 4% of human DNA and contains about 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.

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. and Giordano, A. 2006. RB and cell cycle progression. *Oncogene* 25: 5220-5227.
4. Grados, M.A. and Walkup, J.T. 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. and Hou, J.W. 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. 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: FAM123A (human) mapping to 13q12.13.

PRODUCT

FAM123A (h): 293T Lysate represents a lysate of human FAM123A transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

FAM123A (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive FAM123A antibodies. Recommended use: 10-20 µl per lane.

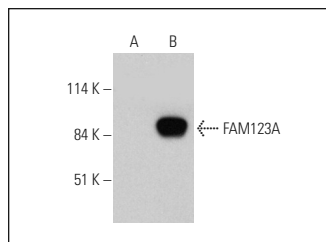
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

FAM123A (B-2): sc-515471 is recommended as a positive control antibody for Western Blot analysis of enhanced human FAM123A expression in FAM123A transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

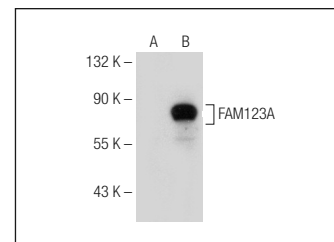
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



FAM123A (B-2): sc-515471. Western blot analysis of FAM123A expression in non-transfected: sc-117752 (A) and human FAM123A transfected: sc-115267 (B) 293T whole cell lysates.



FAM123A (G-1): sc-374654. Western blot analysis of FAM123A expression in non-transfected: sc-117752 (A) and human FAM123A transfected: sc-115267 (B) 293T whole cell lysates.

RESEARCH USE

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