FAM123A (H-39): sc-292972



The Power to Question

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

- 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.
- Bugge, M., et al. 2007. Non-disjunction of chromosome 13. Hum. Mol. Genet. 16: 2004-2010.
- 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.
- 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.
- 9. Thorslund, T., et al. 2007. BRCA2: a universal recombinase regulator. Oncogene 26: 7720-7730.

CHROMOSOMAL LOCATION

Genetic locus: AMER2 (human) mapping to 13q12.13; Fam123a (mouse) mapping to 14 D1.

SOURCE

FAM123A (H-39) is a rabbit polyclonal antibody raised against amino acids 322-360 mapping within an internal region of FAM123A of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FAM123A (H-39) is recommended for detection of FAM123A of mouse, rat and 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 FAM123A siRNA (h): sc-105346, FAM123A siRNA (m): sc-108774, FAM123A shRNA Plasmid (h): sc-105346-SH, FAM123A shRNA Plasmid (m): sc-108774-SH, FAM123A shRNA (h) Lentiviral Particles: sc-105346-V and FAM123A shRNA (m) Lentiviral Particles: sc-108774-V.

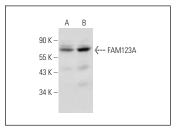
Molecular Weight of FAM123A: 70/58 kDa.

Positive Controls: T98G cell lysate: sc-2294 or COLO 320DM cell lysate: sc-2226.

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). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FAM123A (H-39): sc-292972. Western blot analysis of FAM123A expression in T98G (**A**) and COLO 320DM (**B**) whole cell lysates.

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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com