

FANK1 (F-5): sc-398026

BACKGROUND

FANK1 (Fibronectin type III and ankyrin repeat domains 1), also known as HSD13, is a 345 amino acid nuclear and cytoplasmic testis-specific protein found primarily in pachytene spermatocytes and round spermatids. Containing six ANK repeats and a single Fibronectin type-III domain, FANK1 undergoes alternative splicing events to form three isoforms. Possessing DNA binding activity, FANK1 is suggested to act as a transcription factor and may regulate gene expression during spermatogenesis. The gene encoding FANK1 maps to human chromosome 10, which contains over 800 genes and 135 million nucleotides, making up nearly 4.5% of the human genome. PTEN is an important tumor suppressor gene located on chromosome 10 and, when defective, causes a genetic predisposition to cancer development known as Cowden syndrome.

REFERENCES

1. Teresi, R.E., et al. 2007. Cowden syndrome-affected patients with PTEN promoter mutations demonstrate abnormal protein translation. *Am. J. Hum. Genet.* 81: 756-767.
2. Zheng, Z., et al. 2007. FANK1 is a testis-specific gene encoding a nuclear protein exclusively expressed during the transition from the meiotic to the haploid phase of spermatogenesis. *Gene Expr. Patterns* 7: 777-783.
3. Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611640. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Tremblay, K., et al. 2008. Genes to diseases (G2D) computational method to identify asthma candidate genes. *PLoS ONE* 3: e2907.
5. Trynka, G., et al. 2009. Coeliac disease-associated risk variants in TNFAIP3 and REL implicate altered NFκB signalling. *Gut* 58: 1078-1083.

CHROMOSOMAL LOCATION

Genetic locus: FANK1 (human) mapping to 10q26.2; Fank1 (mouse) mapping to 7 F3.

SOURCE

FANK1 (F-5) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of FANK1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FANK1 (F-5) is available conjugated to agarose (sc-398026 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398026 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398026 PE), fluorescein (sc-398026 FITC), Alexa Fluor® 488 (sc-398026 AF488), Alexa Fluor® 546 (sc-398026 AF546), Alexa Fluor® 594 (sc-398026 AF594) or Alexa Fluor® 647 (sc-398026 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398026 AF680) or Alexa Fluor® 790 (sc-398026 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

FANK1 (F-5) is recommended for detection of FANK1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 FANK1 siRNA (h): sc-90625, FANK1 siRNA (m): sc-145066, FANK1 shRNA Plasmid (h): sc-90625-SH, FANK1 shRNA Plasmid (m): sc-145066-SH, FANK1 shRNA (h) Lentiviral Particles: sc-90625-V and FANK1 shRNA (m) Lentiviral Particles: sc-145066-V.

Molecular Weight of FANK1: 38 kDa.

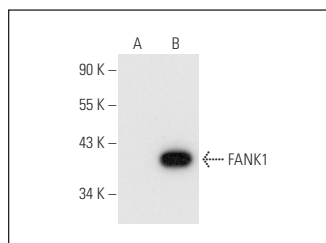
Positive Controls: FANK1 (m): 293T Lysate: sc-126834.

RECOMMENDED SUPPORT REAGENTS

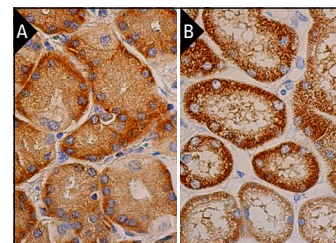
To ensure optimal results, the following support reagents are recommended:

- 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.
- 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).
- 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.
- 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FANK1 (F-5): sc-398026. Western blot analysis of FANK1 expression in non-transfected: sc-117752 (A) and mouse FANK1 transfected: sc-126834 (B) 293T whole cell lysates.



FANK1 (F-5): sc-398026. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing cytoplasmic staining of glandular cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic staining of cells in tubules (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.