SANTA CRUZ BIOTECHNOLOGY, INC.

Fhit (H-107): sc-292538

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fhit, a candidate tumor suppressor gene, contains the FRA3B common fragile site and is highly susceptible to carcinogen damage. The pattern of mutational inactivation seen with the Fhit gene is unique compared with other known tumor suppressors. Fhit gene structure and expression have been shown to be altered in esophageal, head, neck, lung, gastric, breast and cervical carcinomas. It has been demonstrated that Fhit exon loss is associated with smoking duration or asbestos exposure. The Fhit protein is a member of the histidine triad (HIT) superfamily and functions as a dinucleoside 5',5'''-P^1,P^3-triphosphate hydrolase.

REFERENCES

1. Mao, L., et al. 1996. Frequent abnormalities of Fhit, a candidate suppressor gene, in head and neck cancer cell lines. Cancer Res. 56: 5128-5131.
2. Barnes, L.D., et al. 1996. Fhit, a putative tumor suppressor in humans, is a dinucleoside 5',5'''-P1,P3-triphosphate hydrolase. Biochemistry 35: 11529-11535.
3. Siprashvili, Z., et al. 1997. Replacement of Fhit in cancer cells suppresses tumorigenicity. Proc. Natl. Acad. Sci. USA 94: 13771-13776.

CHROMOSOMAL LOCATION

Genetic locus: FHIT (human) mapping to 3p14.2; Fhit (mouse) mapping to 14 A1.

SOURCE

Fhit (H-107) is a rabbit polyclonal antibody raised against amino acids 1-107 mapping at the N-terminus of Fhit of human origin.

PRODUCT

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

APPLICATIONS

Fhit (H-107) is recommended for detection of Fhit 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).

Fhit (H-107) is also recommended for detection of Fhit in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Fhit siRNA (h): sc-106872, Fhit siRNA (m): sc-145170, Fhit shRNA Plasmid (h): sc-106872-SH, Fhit shRNA Plasmid (m): sc-145170-SH, Fhit shRNA (h) Lentiviral Particles: sc-106872-V and Fhit shRNA (m) Lentiviral Particles: sc-145170-V.

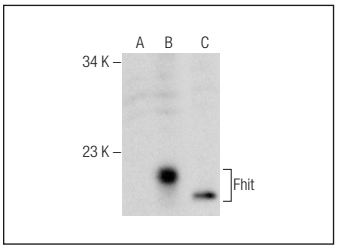
Molecular Weight of Fhit: 17 kDa.

Positive Controls: Fhit (h): 293T Lysate: sc-114836 or human kidney extract: sc-363764.

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



Fhit (H-107): sc-292538. Western blot analysis of Fhit expression in non-transfected: sc-117752 (**A**) and human Fhit transfected: sc-114836 (**B**) 293T whole cell lysates and human kidney tissue extract (**C**).

SELECT PRODUCT CITATIONS

1. Strazzullo, M., et al. 2012. Molecular and epigenetic analysis of the fragile histidine triad tumour suppressor gene in equine sarcoids. BMC Vet. Res. 8: 30.
2. Zhou, X., et al. 2015. A comparative proteomic study of Homoharringtonine-induced apoptosis in leukemia K562 cells. Leuk. Lymphoma 56: 2162-2169.

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.