

Fhit (N-19): sc-8215

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'''-P¹,P³-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. Siplashvili, Z., et al. 1997. Replacement of Fhit in cancer cells suppresses tumorigenicity. *Proc. Natl. Acad. Sci. USA* 94: 13771-13776.
4. Bugert, P., et al. 1997. FHIT gene and the FRA3B region are not involved in the genetics of renal cell carcinomas. *Genes Chromosomes Cancer* 20: 9-15.
5. Michael, D., et al. 1997. Frequent deletions of FHIT and FRA3B in Barrett's metaplasia and esophageal adenocarcinomas. *Oncogene* 15: 1653-1659.
6. Le Beau, M.M., et al. 1998. An FHIT tumor suppressing gene? *Genes Chromosome Cancer* 21: 281-289.
7. Nelson, H.H., et al. 1998. Chromosome 3p14 alterations in lung cancer: evidence that FHIT exon deletion is a target of tobacco carcinogen and asbestos. *Cancer Res.* 58: 1804-1807.

CHROMOSOMAL LOCATION

Genetic locus: FHIT (human) mapping to 3p14.2; Fhit (mouse) mapping to 14 A2.

SOURCE

Fhit (N-19) is an affinity purified goat polyclonal antibody raised against a peptide 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.

Blocking peptide available for competition studies, sc-8215 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

Fhit (N-19) 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).

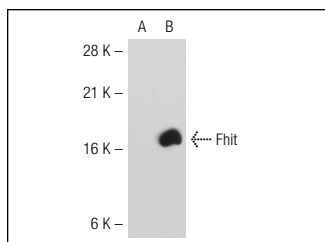
Fhit (N-19) is also recommended for detection of Fhit in additional species, including equine, canine, bovine and avian.

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.

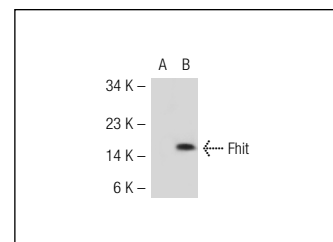
Molecular Weight of Fhit: 16.8 kDa.

Positive Controls: Fhit (h): 293T Lysate: sc-114836, Fhit (m): 293T Lysate: sc-120253 or HL-60 whole cell lysate: sc-2209.

DATA



Fhit (N-19): sc-8215. Western blot analysis of Fhit expression in non-transfected: sc-117752 (A) and human Fhit transfected: sc-114836 (B) 293T whole cell lysates.



Fhit (N-19): sc-8215. Western blot analysis of Fhit expression in non-transfected: sc-117752 (A) and mouse Fhit transfected: sc-120253 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Golebiowski, F., et al. 2001. Distribution of Fhit protein in rat tissues and its intracellular localization. *Mol. Cell. Biochem.* 226: 49-55.

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.


 MONOS
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Try **Fhit (G-4): sc-390481** or **Fhit (C-7): sc-271621**, our highly recommended monoclonal alternatives to Fhit (N-19).