

Fhit (m): 293T Lysate: sc-120253

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'''-P₁P₃-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'''-P₁P₃-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.
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 (mouse) mapping to 14 A1.

PRODUCT

Fhit (m): 293T Lysate represents a lysate of mouse Fhit 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.

APPLICATIONS

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

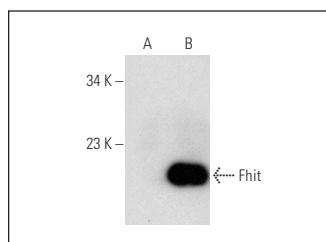
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Fhit (C-7): sc-271621 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Fhit expression in Fhit 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



Fhit (C-7): sc-271621. Western blot analysis of Fhit expression in non-transfected: sc-117752 (A) and mouse Fhit transfected: sc-120253 (B) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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