Technical Data Sheet

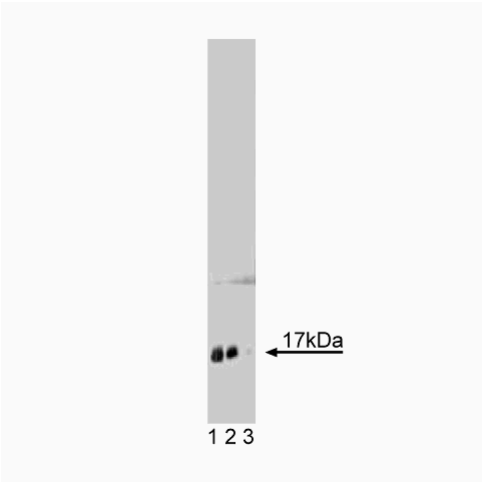
Purified Mouse Anti-FHIT

Product Information

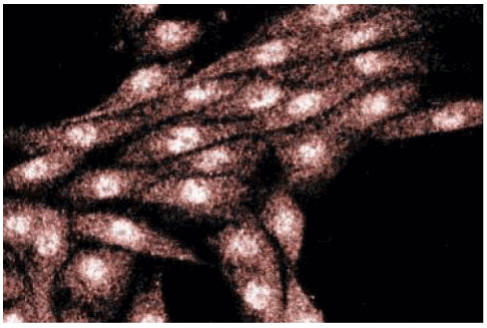
Material Number:	**611740**
Size:	50 µg
Concentration:	250 µg/ml
Clone:	30/FHIT
Immunogen:	Mouse FHIT aa. 26-148
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Mouse Tested in Development: Rat
Target MW:	17 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Multiple tumor-derived cell lines have homozygous deletions in a 200-300 kb region in chromsome 3p14.2. This region includes the fragile site locus FRA3B, which may contain deletions in tumor suppressor genes. Abnormalities in the expression and structure of a gene, FHIT, that spans the FRA3B locus have been observed in a variety of carcinomas. FHIT (**F**ragile **Hi**stidine **T**riad) is widely expressed in normal embryonic and adult tissues and is absent in lung, renal, and gastric tumors. Exposure of FHIT heterozygous knock-out mice to carcinogens produces increased tumorigenicity similar to that observed in Muir-Torre familial cancer syndrome. The only known function of FHIT is as a diadenosine 5',5'''-P1, P3-triphosphate (Ap3A) hydrolase. Both in vitro and in vivo, FHIT regulates the level of Ap3A and adenosine (5') tetraphosphate(5') nucleoside. However, this hydrolase activity may not be involved in FHIT tumor suppressor activity, since a mutant FHIT that binds but does not hydrolyze Ap3A is as effective as the wild-type in reducing tumorigenicity in mouse cancer models. Thus, FHIT activity may be essential for a unique antiproliferative signaling pathway.



Western blot analysis of FHIT on mouse liver lysate. *Lane 1: 1:250, lane 2: 1:500, lane 3: 1:1000 dilution of anti-FHIT.*



Immunofluorescent staining of L6 cells.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

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Suggested Companion Products

Catalog Number	Name	Size	Clone
611458	Mouse Liver Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Fong LY, Fidanza V, Zanesi N, et al. Muir-Torre-like syndrome in Fhit-deficient mice. *Proc Natl Acad Sci U S A.* 2000; 97(9):4742-4747.(Biology)

Murphy GA, Halliday D, McLennan AG. The Fhit tumor suppressor protein regulates the intracellular concentration of diadenosine triphosphate but not diadenosine tetraphosphate. *Cancer Res.* 2000; 60(9):2342-2344.(Biology)

Ohta M, Inoue H, Cotticelli MG, et al. The FHIT gene, spanning the chromosome 3p14.2 fragile site and renal carcinoma-associated t(3;8) breakpoint, is abnormal in digestive tract cancers. *Cell.* 1996; 84(4):587-597.(Biology)