



# SZABO SCANDIC

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## Produktinformation



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# PRODUCT INFORMATION



## FHIT (human, recombinant)

Item No. 35510

### Overview and Properties

**Synonyms:**  $Ap_3$ Aase,  $Ap_3$ A Hydrolase, Bis(5'-adenosyl)-Triphosphatase, Diadenosine 5',5''-P<sub>1</sub>,P<sub>3</sub>-Triphosphate Hydrolase, Dinucleosidetriphosphatase, FRA3B, Fragile Histidine Triad Protein

**Source:** Recombinant human C-terminal His-tagged FHIT expressed in *E. coli*

**Amino Acids:** 1-147 (full length)

**Uniprot No.:** P49789

**Molecular Weight:** 17.7 kDa

**Storage:** -80°C (as supplied)

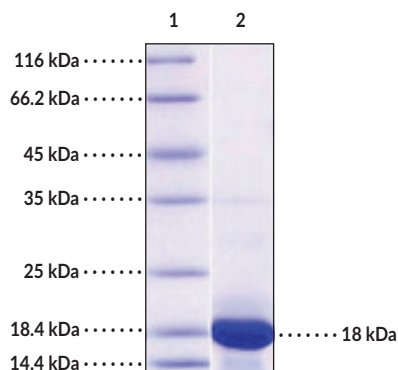
**Stability:** ≥1 year

**Purity:** ≥85% estimated by SDS-PAGE

**Supplied in:** Lyophilized from sterile 50 mM Tris, pH 8.0, with 10% glycerol

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Image



Lane 1: MW Markers  
Lane 2: FHIT

**SDS-PAGE Analysis of FHIT.** This protein has a calculated molecular weight of 17.7 kDa. It has an apparent molecular weight of approximately 18 kDa by SDS-PAGE under reducing conditions.

WARNING  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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# PRODUCT INFORMATION



## Description

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Fragile histidine triad diadenosine triphosphatase (FHIT) is a hydrolase and tumor suppressor.<sup>1-3</sup> It contains a His-x-His-x-His motif that hydrolyzes diadenosine triphosphate (Ap<sub>3</sub>A), as well as Ap<sub>4</sub>A and ATP.<sup>1</sup> FHIT is expressed in spleen, brain, kidney, lung, and liver and localizes to the plasma membrane, nucleus, mitochondria, and cytoplasm.<sup>4-6</sup> It is involved in tumor suppression and genome stability.<sup>2</sup> Overexpression of *FHIT* induces apoptosis in lung cancer cells and reduces tumor growth in lung cancer mouse xenograft models.<sup>7</sup> Homozygous or heterozygous loss of *FHIT* expression is prevalent in several cancers, and the *FHIT* gene contains a common fragile site, *FRA3B*, that is a translocation breakpoint associated with hereditary kidney cancer.<sup>3</sup> Cayman's FHIT (human, recombinant) protein consists of 153 amino acids and has a calculated molecular weight of 17.7 kDa. By SDS-PAGE, under reducing conditions, the apparent molecular mass of the protein is 18 kDa.

## References

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2. Waters, C.E., Saldivar, J.C., Hosseini, S.A., et al. The *FHIT* gene product: Tumor suppressor and genome "caretaker". *Cell. Mol. Life Sci.* **71**(23), 4577-4587 (2014).
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7. Ji, L., Fang, B., Yen, N., et al. Induction of apoptosis and inhibition of tumorigenicity and tumor growth by adenovirus vector-mediated fragile histidine triad (*FHIT*) gene overexpression. *Cancer Res.* **59**(14), 3333-3339 (1999).

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