

**FHIT Antibody**  
Rabbit mAb  
Catalog # AP92428

## Specification

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### FHIT Antibody - Product Information

Application	WB
Primary Accession	<a href="#">P49789</a>
Reactivity	Rat
Clonality	Monoclonal
<b>Other Names</b>	
AP3A hydrolase; AP3Aase; Dinucleosidetriphosphatase; FRA3B;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	16858 Da

### FHIT Antibody - Additional Information

Purification	<b>Affinity-chromatography</b>
Immunogen	<b>A synthesized peptide derived from human FHIT</b>
Description	<b>FHIT (fragile histidine triad) cleaves adenosine 5' PPP 5' A to yield AMP and ADP. Alterations and deletions of the FHIT gene are strongly linked to the genesis and establishment of human tumors of the lung, cervix, breast, colon, stomach and pancreas. In normal cells, FHIT may act as a tumor suppressor. FHIT physically associates with ubiquitin conjugating enzyme 9.</b>
Storage Condition and Buffer	<b>Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.</b>

### FHIT Antibody - Protein Information

**Name** FHIT

#### **Function**

Possesses dinucleoside triphosphate hydrolase activity (PubMed:<a href="http://www.uniprot.org/citations/12574506" target="\_blank">12574506</a>, PubMed:<a href="http://www.uniprot.org/citations/15182206" target="\_blank">15182206</a>, PubMed:<a href="http://www.uniprot.org/citations/8794732" target="\_blank">8794732</a>, PubMed:<a href="http://www.uniprot.org/citations/9323207" target="\_blank">9323207</a>, PubMed:<a href="http://www.uniprot.org/citations/9543008" target="\_blank">9543008</a>, PubMed:<a

href="http://www.uniprot.org/citations/9576908" target="\_blank">9576908</a>). Cleaves P(1)-P(3)-bis(5'-adenosyl) triphosphate (Ap3A) to yield AMP and ADP (PubMed:<a href="http://www.uniprot.org/citations/12574506" target="\_blank">12574506</a>, PubMed:<a href="http://www.uniprot.org/citations/15182206" target="\_blank">15182206</a>, PubMed:<a href="http://www.uniprot.org/citations/8794732" target="\_blank">8794732</a>, PubMed:<a href="http://www.uniprot.org/citations/9323207" target="\_blank">9323207</a>, PubMed:<a href="http://www.uniprot.org/citations/9543008" target="\_blank">9543008</a>, PubMed:<a href="http://www.uniprot.org/citations/9576908" target="\_blank">9576908</a>). Can also hydrolyze P(1)-P(4)-bis(5'-adenosyl) tetraphosphate (Ap4A), but has extremely low activity with ATP (PubMed:<a href="http://www.uniprot.org/citations/8794732" target="\_blank">8794732</a>). Exhibits adenylylsulfatase activity, hydrolyzing adenosine 5'-phosphosulfate to yield AMP and sulfate (PubMed:<a href="http://www.uniprot.org/citations/18694747" target="\_blank">18694747</a>). Exhibits adenosine 5'-monophosphoramidase activity, hydrolyzing purine nucleotide phosphoramidates with a single phosphate group such as adenosine 5' monophosphoramidate (AMP-NH<sub>2</sub>) to yield AMP and NH<sub>2</sub> (PubMed:<a href="http://www.uniprot.org/citations/18694747" target="\_blank">18694747</a>). Exhibits adenylylsulfate-ammonia adenylyltransferase, catalyzing the ammonolysis of adenosine 5'- phosphosulfate resulting in the formation of adenosine 5'- phosphoramidate (PubMed:<a href="http://www.uniprot.org/citations/26181368" target="\_blank">26181368</a>). Also catalyzes the ammonolysis of adenosine 5-phosphorfluoridate and diadenosine triphosphate (PubMed:<a href="http://www.uniprot.org/citations/26181368" target="\_blank">26181368</a>). Modulates transcriptional activation by CTNNB1 and thereby contributes to regulate the expression of genes essential for cell proliferation and survival, such as CCND1 and BIRC5 (PubMed:<a href="http://www.uniprot.org/citations/18077326" target="\_blank">18077326</a>). Plays a role in the induction of apoptosis via SRC and AKT1 signaling pathways (PubMed:<a href="http://www.uniprot.org/citations/16407838" target="\_blank">16407838</a>). Inhibits MDM2-mediated proteasomal degradation of p53/TP53 and thereby plays a role in p53/TP53-mediated apoptosis (PubMed:<a href="http://www.uniprot.org/citations/15313915" target="\_blank">15313915</a>). Induction of apoptosis depends on the ability of FHIT to bind P(1)-P(3)-bis(5'-adenosyl) triphosphate or related compounds, but does not require its catalytic activity, it may in part come from the mitochondrial form, which sensitizes the low-affinity Ca(2+) transporters, enhancing mitochondrial calcium uptake (PubMed:<a href="http://www.uniprot.org/citations/12574506" target="\_blank">12574506</a>, PubMed:<a href="http://www.uniprot.org/citations/19622739" target="\_blank">19622739</a>). Functions as a tumor suppressor (By similarity).

#### Cellular Location

Cytoplasm. Mitochondrion. Nucleus

#### Tissue Location

Low levels expressed in all tissues tested. Phospho-FHIT observed in liver and kidney, but not in brain and lung Phospho-FHIT undetected in all tested human tumor cell lines

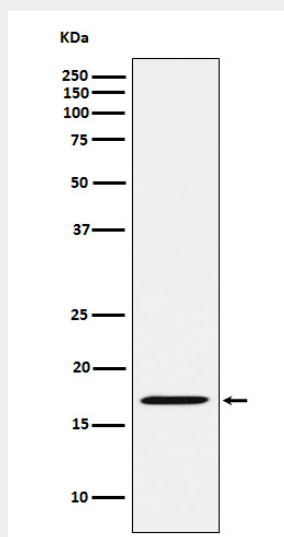
#### FHIT Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

- [Cell Culture](#)

## FHIT Antibody - Images



Western blot analysis of FHIT expression in Rat kidney lysate.