Data Sheet (Cat.No.TMPH-02549)

TargetMol

FHIT Protein, Mouse, Recombinant (His)

General Information

Synonyms:	Fragile histidine triad protein;Diadenosine 5',5'''-P1,P3-triphosphate hydrolase;Fhit;AP3A hydrolase (AP3Aase);Bis(5'-adenosyl)-triphosphatase;Dinucleosidetriphosphatase; Adenylylsulfate-ammonia adenylyltransferase;Adenosine 5'-monophosphoramidase FHIT; Adenylylsulfatase
Protein Construction:	2-150 aa
Species:	Mouse
Expression Host:	E. coli
Accession:	O89106
Molecular Weight:	21.1 kDa (predicted)
AA Sequence:	SFRFGQHLIKPSVVFLKTELSFALVNRKPVVPGHVLVCPLRPVERFRDLHPDEVADLFQVTQRVGTVVEKHFQ GTSITFSMQDGPEAGQTVKHVHVHVLPRKAGDFPRNDNIYDELQKHDREEEDSPAFWRSEKEMAAEAEALR VYFQA

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Tris-based buffer, 50% glycerol

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Possesses dinucleoside triphosphate hydrolase activity. Cleaves P(1)-P(3)-bis(5'-adenosyl) triphosphate (Ap3A) to

yield AMP and ADP. Can also hydrolyze P(1)-P(4)-bis(5'-adenosyl) tetraphosphate (Ap4A), but has extremely low activity with ATP. Exhibits adenylylsulfatase activity, hydrolyzing adenosine 5'-phosphosulfate to yield AMP and sulfate. Exhibits adenosine 5'-monophosphoramidase activity, hydrolyzing purine nucleotide phosphoramidates with a single phosphate group such as adenosine 5'monophosphoramidate (AMP-NH2) to yield AMP and NH2. Exhibits adenylylsulfate-ammonia adenylyltransferase, catalyzing the ammonolysis of adenosine 5'-phosphosulfate resulting in the formation of adenosine 5'-phosphoramidate. Also catalyzes the ammonolysis of adenosine 5-phosphorofluoridate and diadenosine triphosphate. 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. Plays a role in the induction of apoptosis via SRC and AKT1 signaling pathways. Inhibits MDM2-mediated proteasomal degradation of p53/TP53 and thereby plays a role in p53/TP53-mediated apoptosis. 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. Functions as tumor suppressor.