

Product datasheet for **RC228740**

FHIT (NM_001166243) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: FHIT (NM_001166243) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: FHIT
Synonyms: AP3Aase; FRA3B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC228740 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGGATCGCC**

ATGTCGTT**CAGATTTGGCCAACATCTCATCAAGCCCTCTGTAGTGTTC**CAAAACAGAACTGTCCTTCG
CTCTTGTGAATAGGAACTGTGGTACCAGGACATGTCCTTGTGTGCCCGCTGCGCCAGTGGAGCGCTT
CCATGACCTGCGTCTGATGAAGTGGCCGATTTGTTTCAGACGCCAGAGAGTCCGGACAGTGGTGGAA
AAACATTTCCATGGGACCTCTCTCACCTTTCCATGCAGGATGGCCCCGAAGCCGGACAGACTGTGAAGC
ACGTTACGTCCATGTTCTTCCAGGAAGGCTGGAGACTTTCACAGGAATGACAGCATCTATGAGGAGCT
CCAGAAACATGACAAGGAGGACTTTCCTGCCTCTTGGAGATCAGAGGAGGAAATGGCAGCAGAAGCCGCA
GCTCTGCGGGTCTACTTTCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC228740 protein sequence
Red=Cloning site Green=Tags(s)

MSFRFGQHLIKPSVVFLKTELSFALVNRKPVVPGHVLVCPLRPVERFHDLRPDEVADLFQTTQRVGTVVE
KHFHGTSLTFMQDGPEAGQTVKHVHVHVLPRKAGDFHRNDSIYEELQKHDKEDFPASWRSEEEMAAEAA
ALRVYFQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6020_a03.zip



[View online >](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001166243

ORF Size: 441 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

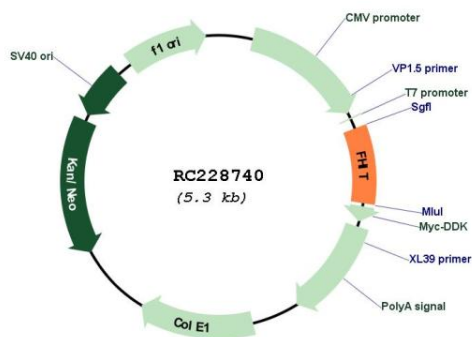
RefSeq: [NM_001166243.3](#)

RefSeq Size: 1122 bp

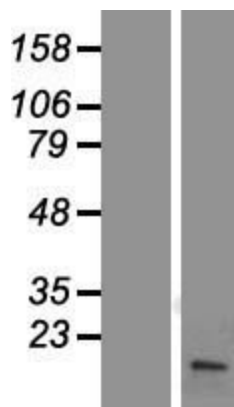
RefSeq ORF: 444 bp

Locus ID: 2272

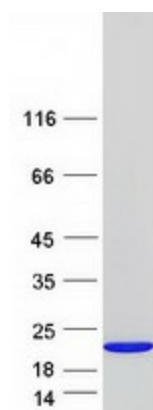
UniProt ID: [P49789](#)
Cytogenetics: 3p14.2
Protein Pathways: Non-small cell lung cancer, Purine metabolism, Small cell lung cancer
MW: 16.9 kDa
Gene Summary: The protein encoded by this gene is a P1-P3-bis(5'-adenosyl) triphosphate hydrolase involved in purine metabolism. This gene encompasses the common fragile site FRA3B on chromosome 3, where carcinogen-induced damage can lead to translocations and aberrant transcripts. In fact, aberrant transcripts from this gene have been found in about half of all esophageal, stomach, and colon carcinomas. The encoded protein is also a tumor suppressor, as loss of its activity results in replication stress and DNA damage. [provided by RefSeq, Aug 2017]

Product images:


Circular map for RC228740



Western blot validation of overexpression lysate (Cat# [LY431768]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228740 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified FHIT protein (Cat# [TP328740]). The protein was produced from HEK293T cells transfected with FHIT cDNA clone (Cat# RC228740) using MegaTran 2.0 (Cat# [TT210002]).