

Product datasheet for **RG207120**

FHIT (NM_002012) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: FHIT (NM_002012) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: FHIT
Synonyms: AP3Aase; FRA3B
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG207120 representing NM_002012
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCGTT**CAGATTTGGCCAACATCTCATCAAGCCCTCTGTAGTGTCTCAAACAGA**ACTGTCTT**CG**
CTCTTGTGAATAGGAACTGTGGTACCAGGACATGTCTTGTGTGCCCGCTGCGCCAGTGGAGCGCTT
CCATGACCTGCGTCTGATGAAGTGGCCGATTTGTTTCAGACGACCCAGAGAGTCCGGACAGTGGTGGAA
AAACATTTCCATGGGACCTCTCTCACCTTTCCATGCAGGATGGCCCGAAGCCGGACAGACTGTGAAGC
ACGTTACGTCCATGTTCTTCCAGGAAGGCTGGAGACTTTCACAGGAATGACAGCATCTATGAGGAGCT
CCAGAAACATGACAAGGAGGACTTTCCTGCCTCTTGAGATCAGAGGAGGAAATGGCAGCAGAAGCCGCA
GCTCTGCGGGTCTACTTTCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG207120 representing NM_002012
Red=Cloning site Green=Tags(s)

MSFRFGQH**L**IKPSVVFLKTELSFALVNRKPVVPGHVLVCPLRPVERFHDLRPDEVADLFQTTQRVGTVV**E**
KHFFHGTS**L**TFMQDGPEAGQTVKHVHVHVLPRKAGDFHRNDSIYEELQKHDKEDFPASWRSEEEMAAEA**A**
ALRVYFQ

TRTRPLE - GFP Tag - V

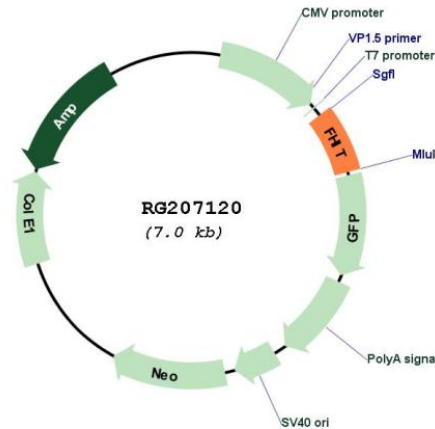
Restriction Sites: SgfI-MluI



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Cloning Scheme:

Cloning sites used for ORF Shutting:


Plasmid Map:

ACCN: NM_002012

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:	<ol style="list-style-type: none">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_002012.4
RefSeq Size:	1095 bp
RefSeq ORF:	444 bp
Locus ID:	2272
UniProt ID:	P49789
Cytogenetics:	3p14.2
Domains:	HIT
Protein Pathways:	Non-small cell lung cancer, Purine metabolism, Small cell lung cancer
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]