

Product datasheet for **RC215516**

Inosine triphosphate pyrophosphatase (ITPA) (NM_181493) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Inosine triphosphate pyrophosphatase (ITPA) (NM_181493) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: Inosine triphosphate pyrophosphatase
Synonyms: C20orf37; DEE35; dj79416.3; HLC14-06-P; ITPase; My049; NTPase
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC215516 representing NM_181493
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGGCTCATTGGTCGTTCTAGGAGATAAGTTTCCATGCACAAAATTG
ACCTGCCGAGTACCAGGGGAGCCGGATGAGATTTCCATACAGAAATGTCAGGAGGCAGTTCGCCAGGT
ACAGGGGCCCGTGTGGTTGAGGACACTGTCTGTGCTCAATGCCCTTGGAGGGCTCCCGGCCCTAC
ATAAAGTGGTTTCTGGAGAAGTTAAAGCCTGAAGGTCTCCACCAGCTCCTGGCCGGTTCGAGGACAAGT
CAGCCTATGCGCTCTGCACGTTTGCACCTCAGCACCGGGACCCAAGCCAGCCCGTGCCTGTTTCAGGGG
CCGGACCTCGGGCCGGATCGTGGCACCCAGAGGCTGCCAGGACTTTGGCTGGGACCCCTGCTTTCAGCCT
GATGGATATGAGCAGACGTACGCAGAGATGCCTAAGGCGGAGAAGAACGCTGTCTCCCATCGCTCCGGG
CCCTGCTGGAGCTGCAGGAGTACTTTGGCAGTTTGGCAGCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215516 representing NM_181493
Red=Cloning site Green=Tags(s)
MAASLVVQILGDKFPCTLVAQKIDLPEYQGEPEDEISIQKQAEVAVRQVQGPVLEDVLCFNLGGLPGPY
IKWFLEKLKPEGLHQLLAGFEDKSAYALCTFALSTGDPSPVRLFRGRTSGRIVAPRGCQDFGWDPFCQP
DGYEQTYAEMPKAEKNAVSHRFRALLELQEYFGSLAA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1476_g06.zip

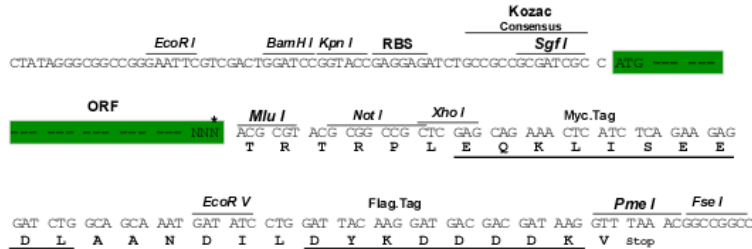


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Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_181493

ORF Size: 531 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_181493.4](#)

RefSeq Size: 1155 bp

RefSeq ORF: 534 bp

Locus ID: 3704

UniProt ID: [Q9BY32](#)

Cytogenetics: 20p13

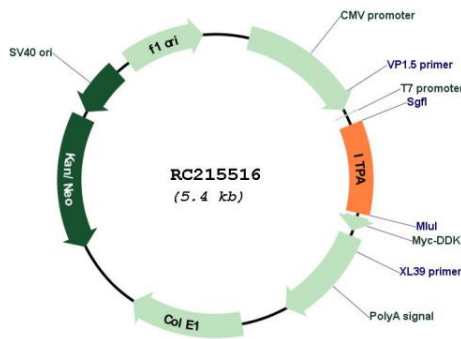
Protein Families: Druggable Genome

Protein Pathways: Drug metabolism - other enzymes, Metabolic pathways, Purine metabolism, Pyrimidine metabolism

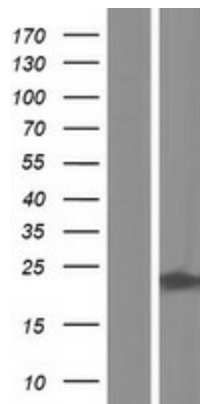
MW: 19.4 kDa

Gene Summary: This gene encodes an inosine triphosphate pyrophosphohydrolase. The encoded protein hydrolyzes inosine triphosphate and deoxyinosine triphosphate to the monophosphate nucleotide and diphosphate. This protein, which is a member of the HAM1 NTPase protein family, is found in the cytoplasm and acts as a homodimer. Defects in the encoded protein can result in inosine triphosphate pyrophosphorylase deficiency which causes an accumulation of ITP in red blood cells. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jun 2012]

Product images:



Circular map for RC215516



Western blot validation of overexpression lysate (Cat# [LY405684]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215516 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).