

### **Product datasheet for RC204021**

#### OriGene Technologies, Inc.

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#### Inosine triphosphate pyrophosphatase (ITPA) (NM 033453) Human Tagged ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

Product Name: Inosine triphosphate pyrophosphatase (ITPA) (NM\_033453) Human Tagged ORF Clone

Tag: Myc-DDK

**Symbol:** Inosine triphosphate pyrophosphatase

**Synonyms:** C20orf37; DEE35; dJ794l6.3; HLC14-06-P; ITPase; My049; NTPase

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)ORF Nucleotide>RC204021 ORF sequence

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCGGCCTCATTGGTGGGGAAGAAGATCGTGTTTGTAACGGGGAACGCCAAGAAGCTGGAGGAGGTCG
TTCAGATTCTAGGAGATAAGTTTCCATGCACTTTGGTGGCACAGAAAATTGACCTGCCGGAGTACCAGGG
GGAGCCGGATGAGATTTCCATACAGAAATGTCAGGAGGCAGTTCGCCAGGTACAGGGGCCCGTGCTGGTT
GAGGACACTTGTCTGTGCTTCAATGCCCTTGGAGGGCTCCCCGGCCCCTACATAAAGTGGTTTCTGGAGA
AGTTAAAGCCTGAAGGTCTCCACCAGCTCCTGGCCGGGTTCGAGGACAAGTCAGCCTATGCGCTCTGCAC
GTTTGCACTCAGCACCGGGGACCCAAGCCAGCCCGTGCGCCTGTTCAGGGGCCGGACCTCGGGCCGGATC
GTGGCACCCAGAGGCTGCCAGGACTTTGGCTGGGACCCTGCTTTCAGCCTGATGGATATGAGCAGACGT
ACGCAGAGAGTCCTAAGGCCGAGAAAAAACGCTGTCTCCCATCGCTTCCGGGCCCTGCTGCAGGA

GTACTTTGGCAGTTTGGCAGCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC204021 protein sequence

Red=Cloning site Green=Tags(s)

MAASLVGKKIVFVTGNAKKLEEVVQILGDKFPCTLVAQKIDLPEYQGEPDEISIQKCQEAVRQVQGPVLV EDTCLCFNALGGLPGPYIKWFLEKLKPEGLHQLLAGFEDKSAYALCTFALSTGDPSOPVRLFRGRTSGRI

VAPRGCQDFGWDPCFQPDGYEQTYAEMPKAEKNAVSHRFRALLELQEYFGSLAA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



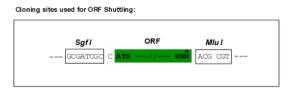
# Inosine triphosphate pyrophosphatase (ITPA) (NM\_033453) Human Tagged ORF Clone – RC204021

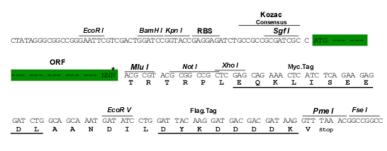
Chromatograms: <a href="https://cdn.origene.com/chromatograms/mk6241">https://cdn.origene.com/chromatograms/mk6241</a> c10.zip

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_033453

ORF Size: 582 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 033453.4

RefSeq Size: 1202 bp
RefSeq ORF: 585 bp
Locus ID: 3704



# Inosine triphosphate pyrophosphatase (ITPA) (NM\_033453) Human Tagged ORF Clone – RC204021

UniProt ID: Q9BY32

Cytogenetics: 20p13

Domains: Ham1p\_like

**Protein Families:** Druggable Genome

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

metabolism

MW: 21.4 kDa

**Gene Summary:** This gene encodes an inosine triphosphate pyrophosphohydrolase. The encoded protein

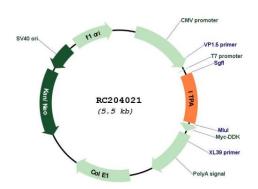
hydrolyzes inosine triphosphate and deoxyinosine triphosphate to the monophosphate nucleotide and diphosphate. This protein, which is a member of the HAM1 NTPase protein family, is found in the cytoplasm and acts as a homodimer. Defects in the encoded protein

can result in inosine triphosphate pyrophosphorylase deficiency which causes an

accumulation of ITP in red blood cells. Alternate splicing results in multiple transcript variants.

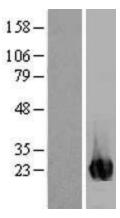
[provided by RefSeq, Jun 2012]

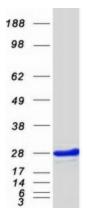
#### **Product images:**



Circular map for RC204021

### Inosine triphosphate pyrophosphatase (ITPA) (NM\_033453) Human Tagged ORF Clone - RC204021





Western blot validation of overexpression lysate (Cat# [LY409516]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204021 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).

Coomassie blue staining of purified ITPA protein (Cat# [TP304021]). The protein was produced from HEK293T cells transfected with ITPA cDNA clone (Cat# RC204021) using MegaTran 2.0 (Cat# [TT210002]).