

## **Product datasheet for RG215516**

## OriGene Technologies, Inc.

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com techsupport@origene.com EU: info-de@origene.com CN: techsupport@origene.cn

# 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: TurboGFP

Symbol: ITPA

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

Mammalian Cell

Selection:

Neomycin

**Vector:** pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG215516 representing NM\_181493

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

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

CCCTGCTGGAGCTGCAGGAGTACTTTGGCAGTTTGGCAGCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG215516 representing NM\_181493

Red=Cloning site Green=Tags(s)

MAASLVVQILGDKFPCTLVAQKIDLPEYQGEPDEISIQKCQEAVRQVQGPVLVEDTCLCFNALGGLPGPY IKWFLEKLKPEGLHQLLAGFEDKSAYALCTFALSTGDPSQPVRLFRGRTSGRIVAPRGCQDFGWDPCFQP

DGYEQTYAEMPKAEKNAVSHRFRALLELQEYFGSLAA

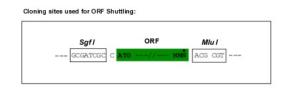
TRTRPLE - GFP Tag - V

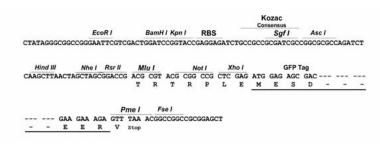
**Restriction Sites:** Sgfl-Mlul



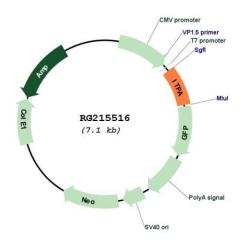


#### **Cloning Scheme:**





### Plasmid Map:



**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.



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**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:** <u>NM 181493.4</u>

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

**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]