# Recombinant Human ITPase/ITPA Protein (His Tag)

**Catalog No.** PKSH032588

***Note:*** Centrifuge before opening to ensure complete recovery of vial contents.

## Description

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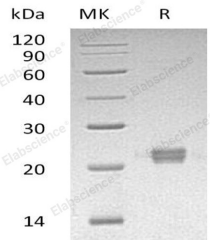
|---|---|
| **Synonyms** | Inosine Triphosphate Pyrophosphatase;ITPase;Inosine Triphosphatase;Non-Canonical Purine NTP Pyrophosphatase;Non-Standard Purine NTP Pyrophosphatase;Nucleoside-Triphosphate Diphosphatase;Nucleoside-Triphosphate Pyrophosphatase;NTPase;Putative Oncogene Protein hlc14-06-p;ITPA;C20orf37 |
| **Species** | Human |
| **Expression Host** | E.coli |
| **Sequence** | Ala2-Ala194 |
| **Accession** | Q9BY32 |
| **Calculated Molecular Weight** | 22.5 kDa |
| **Observed molecular weight** | 21 kDa |
| **Tag** | C-His |
| **Bioactivity** | Not validated for activity |

## Properties

| | |
|---|---|
| **Purity** | > 95 % as determined by reducing SDS-PAGE. |
| **Endotoxin** | < 1.0 EU per μg of the protein as determined by the LAL method. |
| **Storage** | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles. |
| **Shipping** | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| **Formulation** | Supplied as a 0.2 μm filtered solution of 20mM Tris-HCl, 5% Trehalose, 300mM NaCl, 30% Glycerol, 0.05% Tween 80, pH8.0. |
| **Reconstitution** | Not Applicable |

## Data




> 95 % as determined by reducing SDS-PAGE.

## Background

Inosine Triphosphate Pyrophosphatase (ITPase) is a cytoplasmic enzyme that belongs to the HAM1 NTPase family. ITPase hydrolyzes the non-canonical purine nucleotides inosine triphosphate (ITP) and deoxyinosine triphosphate (dITP)



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to the monophosphate nucleotide (IMP) and diphosphate. The ITPase enzyme acts as a homodimer and does not distinguish between the deoxy- and ribose forms. ITPase probably excludes non-canonical purines from RNA and DNA precursor pools, thus preventing their incorporation into RNA and DNA and avoiding chromosomal lesions. Defects in ITPase is thought to be inherited and is characterized by an over-accumulation of ITP in erythocytes, leukocytes and fibroblasts.



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