

# Recombinant Human ATPase Inhibitory Factor 1, His-tagged

**Cat. No.** ATPIF1-2517H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | Recombinant human ATPIF1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.                                                                                                                                                                                                                                                                                                                |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>    | 26-106aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Description</b>      | ATPIF1 binds to the C-terminal region of a beta subunit of the F1-ATPase at low pH values and, via interference of the beta and gamma subunit interaction, ATPIF1 regulates the activity of the F1, F0 ATPase. The overexpression of ATPIF1 in several human carcinomas further supports its participation in oncogenesis and provides insight into the altered metabolism of cancer cells, which includes the reprogramming of energetic metabolism toward glycolysis. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.2M NaCl, 50% glycerol, 2mM DTT.                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Molecular Mass</b>   | 12.2 kDa (106aa), confirmed by MALDI-TOF                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSHMGSDQS ENVDRGAGSI REAGGAFGKR<br>EQAEERYFR AQSREQLAAL KKHHEEEIVH HKKEIERLQK EIERHKQKIK<br>MLKHDD                                                                                                                                                                                                                                                                                                                                               |

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|                            |                                                                                                                                                                                                             |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>              | >95% by SDS - PAGE                                                                                                                                                                                          |
| <b>Applications</b>        | SDS-PAGE                                                                                                                                                                                                    |
| <b>Storage</b>             | Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.                                                        |
| <b>Concentration</b>       | 1 mg/ml (determined by Bradford assay)                                                                                                                                                                      |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                             |
| <b>Gene Name</b>           | ATPIF1 ATPase inhibitory factor 1 [ Homo sapiens ]                                                                                                                                                          |
| <b>Official Symbol</b>     | ATPIF1                                                                                                                                                                                                      |
| <b>Synonyms</b>            | ATPIF1; ATPase inhibitory factor 1; ATPase inhibitor, mitochondrial; ATP synthase inhibitor protein; ATPase inhibitor protein; ATP1; ATPIP; IP; MGC1167; MGC8898; IF1; IF(1); inhibitor of F(1)F(o)-ATPase; |
| <b>Gene ID</b>             | 93974                                                                                                                                                                                                       |
| <b>mRNA Refseq</b>         | NM_016311                                                                                                                                                                                                   |
| <b>Protein Refseq</b>      | NP_057395                                                                                                                                                                                                   |
| <b>UniProt ID</b>          | Q9UII2                                                                                                                                                                                                      |
| <b>Chromosome Location</b> | 1p35.3                                                                                                                                                                                                      |
| <b>Pathway</b>             | Electron Transport Chain, organism-specific biosystem;                                                                                                                                                      |

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**Function**

ATPase binding; ATPase binding; ATPase inhibitor activity; ATPase inhibitor activity; angiostatin binding; calmodulin binding; enzyme inhibitor activity; protein homodimerization activity;

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