



Catalog Number: PR27231

Product Type: Recombinant Protein

Source: *E. Coli*

Amino Acid Sequence: MGSSHHHHHH SSGLVPRGSH MGSHMGSDQS ENVDRGAGSI REAGGAFGKR EQAEEERYFR AQSREQLAAL KKHHEEEIVH HKKEIERLQK EIERHKQKIK MLKHDD.

Description/Molecular Mass: ATPase inhibitory factor 1 (ATPIF1) attaches to the C-terminal region of a beta subunit of the F1-ATPase at low pH values and, through interference of the beta and gamma subunit interaction, ATPIF1 controls the activity of the F1 (the hydrophilic catalytic core), F0 (the membrane embedded protein channel) ATPase. ATPIF1 overexpression in a number of human carcinomas additionally reinforces its participation in oncogenesis and offers insight into the transformed metabolism of cancer cells, including the reprogramming of energy metabolism in relation to glycolysis. Endogenous F1F(o)-ATPase inhibitor curbing ATP depletion when the mitochondrial membrane potential drops below a threshold and the F1F(o)-ATP synthase begins hydrolyzing ATP to pump protons out of the mitochondrial matrix.

ATPIF1 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 106 amino acids (26-106 a.a) and having a molecular mass of 12.2kDa. ATPIF1 is fused to a 25 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Purity: Greater than 95.0% as determined by:
(a) Analysis by SDS-PAGE.

Format: ATPIF1 protein solution (1mg/ml) containing 20mM Tris-HCl buffer (pH 8.0), 0.2M NaCl, 50% glycerol and 2mM DTT.

Storage: Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

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