

Recombinant Human ATIC

Cat. No. ATIC-27034TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant full length Human ATIC with N terminal proprietary tag; Predicted MW 91.19kDa.
Species	Human
Source	Wheat Germ
ProteinLength	592 amino acids
Description	This gene encodes a bifunctional protein that catalyzes the last two steps of the de novo purine biosynthetic pathway. The N-terminal domain has phosphoribosylaminoimidazolecarboxamide formyltransferase activity, and the C-terminal domain has IMP cyclohydrolase activity. A mutation in this gene results in AICA-ribosiduria.
Molecular Weight	91.190kDa inclusive of tags
Form	Liquid
Purity	Proprietary Purification
Storage buffer	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
Storage	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.

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Sequences of amino acids

MAPGQLALFSVSDKTGLVEFARNLTALGLNLVASGGTAKA LRDAGLAVRDVSELTG
 FPEMLGGRVKTLHPAVHAGILA RNIPEDNADMARLDFNLIRVVACNLYPFVKTVASP
 GVTVE EAVEQIDIGGVTLRLAAAKNHARVTVCEPEDYVVVST EMQSSESKDTSLE
 TRRQLALKAFHTAQYDEAISDYFR KQYSGVVSQMPLRYGMNPHQTPAQLYTLQP
 KLPITVLNGA PGFINLCDALNAWQLVKELKEALGIPAAASFKEHVSPAG AAVGIPLSED
 EAKVCMVYDLYKTLTPISAAYARARGAD RMSSFGDFVALSDVCDVPTAKIISREVS
 GIIAPGYEEEEA LTILSKKKNGNYCVLQMDQSYKPDENEVRTLFGLHLSQ KRNGGVV
 DKSLFSNVVTKNKDLPESALRDLIVATIAVK YTQSNVVCYAKNGQVIGIGAGQQSRIH
 CTRLAGDKANYWW LRHHPQVLSMKFKTGKRAEISNAIDQYVTGTIGEDED LIKWK
 ALFEEVPELLTEAEKKEWVEKLTEVSISSDAFF PFRDNVDRAKRSGVAYIAAPSGSA
 ADKVVIEACDELGIIL AHTNLRLFHH

Sequence Similarities

Belongs to the purH family.

GENE INFORMATION
Gene Name

ATIC 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP
 cyclohydrolase [Homo sapiens]

Official Symbol

ATIC

Synonyms

ATIC; 5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase/IMP
 cyclohydrolase; bifunctional purine biosynthesis protein PURH; AICARFT;
 IMPCHASE; phosphoribosylaminoimidazolecarboxamide formyltransferase/IMP
 cyclohydrolase; PURH;

Gene ID

471

mRNA Refseq

NM_004044

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Protein Refseq	NP_004035
MIM	601731
Uniprot ID	P31939
Chromosome Location	2q35
Pathway	Inosine monophosphate biosynthesis, PRPP + glutamine => IMP, organism-specific biosystem; Inosine monophosphate biosynthesis, PRPP + glutamine => IMP, conserved biosystem; Metabolic pathways, organism-specific biosystem;
Function	IMP cyclohydrolase activity; hydrolase activity; phosphoribosylaminoimidazolecarboxamide formyltransferase activity; protein homodimerization activity; transferase activity;