

# Recombinant Human glutamyl-tRNA(Gln) amidotransferase, subunit C, His-tagged

**Cat. No.** GATC-229H    **Lot. No.** (See product label)

## SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b> | GATC, 1-136aa, Human, His tag, E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>ProteinLength</b>    | 1-136 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Description</b>      | GATC allows the formation of correctly charged Gln-tRNA(Gln) through the transamidation of misacylated Glu-tRNA(Gln) in the mitochondria. The reaction takes place in the presence of glutamine and ATP through an activated gamma-phospho-Glu-tRNA(Gln). This protein is subunit of the heterotrimeric GatCAB amidotransferase (AdT) complex, composed of A (QRSL1), B (PET112) and C (GATC) subunits. Recombinant human GATC protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. |
| <b>Form</b>             | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 30% glycerol, 1mM DTT                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Molecular Mass</b>   | 17.5 kDa (159aa), confirmed by MALDI-TOF(Molecular size on SDS-PAGE will appear higher)                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>AA Sequence</b>      | MGSSHHHHHH SSGLVPRGSH MGSMWSRLVW LGLRAPLGGR QGFTSKADPQ<br>GSGRITA AVI EHLERLALVD FGSREAVARL EKAIAFADRL RAVDTDGVEP                                                                                                                                                                                                                                                                                                                                                                                                                                             |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

|                            |                                                                                                                                                                                                                                |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | MESVLEDRCL YLRSDNVVEG NCADELLQNS HRVVEEYFVA PPGNISLPKL<br>DEQEPFPHS                                                                                                                                                            |
| <b>Purity</b>              | >85% by SDS - PAGE                                                                                                                                                                                                             |
| <b>Storage</b>             | Can be stored at +4C short term (1-2 weeks). For long term storage, aliquot and store at -20C or -70C. Avoid repeated freezing and thawing cycles.                                                                             |
| <b>Concentration</b>       | 0.25 mg/ml (determined by Bradford assay)                                                                                                                                                                                      |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                                |
| <b>Gene Name</b>           | GATC?glutamyl-tRNA(Gln) amidotransferase, subunit C [?Homo sapiens(human) ]                                                                                                                                                    |
| <b>Official Symbol</b>     | GATC                                                                                                                                                                                                                           |
| <b>Synonyms</b>            | GATC; 15E1.2; glutamyl-tRNA(Gln) amidotransferase, subunit C; glutamyl-tRNA(Gln) amidotransferase subunit C, mitochondrial; glu-AdT subunit C; glutamyl-tRNA(Gln) amidotransferase, subunit C homolog; NP_789788.1; EC 6.3.5.- |
| <b>Gene ID</b>             | 283459                                                                                                                                                                                                                         |
| <b>mRNA Refseq</b>         | NM_176818                                                                                                                                                                                                                      |
| <b>Protein Refseq</b>      | NP_789788                                                                                                                                                                                                                      |
| <b>UniProt ID</b>          | O43716                                                                                                                                                                                                                         |
| <b>Chromosome Location</b> | 12q24.31                                                                                                                                                                                                                       |
| <b>Pathway</b>             | Aminoacyl-tRNA biosynthesis; mRNA processing                                                                                                                                                                                   |

 Tel: 1-631-559-9269 1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

**Function**

ATP binding; glutaminyI-tRNA synthase (glutamine-hydrolyzing) activity

 Tel: 1-631-559-9269 1-516-512-3133 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA