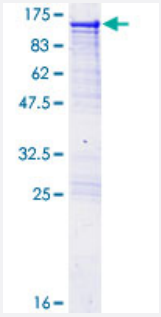
Full-Length Sm Size

# AARS (Human) Recombinant Protein (P01)

Catalog # H00000016-P01 Size 25 ug, 10 ug

## Applications




## Specification

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|---|---|
| **Product Description** | Human AARS full-length ORF ( NP_001596.2, 1 a.a. - 968 a.a.) recombinant protein with GST-tag at N-terminal. |
| **Sequence** | MDSTLTASEIRQRFIDFFKRNEHTYVHSSATIPLDDPTLLFANAGMNQFKPIFLNTIDPSHPMAKLSR AANTQKCIRAGGKHNDLDDVGKDVYHHTFFEMLGSWSFGDYFKELACKMALELLTQEFGIPIERL YVTYFGGDEAAGLEADLECKQIWQNLGLDDTKILPGNMKDNFWEMGDTGPCGPCSEIHYDRIGG RDAAHLVNQDDPNVLEIWNLVFIQYNREADGILKPLPKKSIDTGMGLERLVSVLQNKMSNYDTDLF VPYFEAIQKGTGARPYTGKVGAEDADGIDMAYRVLADHARTITVALADGGRPDNTGRGYVLRRILR RAVRYAHEKLNASRGFFATLVDVVVQSLGDAFPELKKDPDMVKDIINEEEVQFLKTLSRGRRILDR KIQSLGDSKTIPGDTAWLLYDTYGFPVDLTGLIAEEKGLVVDMDGFEEERKLAQLKSQGKGAGGE DLIMLDIYAIEELRARGLEVTDDSPKYNYHLDSSGSYVFENTVATVMALRREKMFVEEVSTGQECG VVLDKTCFYAEQGGQIYDEGYLVKVDDSSEDKTEFTVKNAQVRGGYVLHIGTIYGDLKVGDQVWL FIDEPRRRPIMSNHTATHILNFALRSVLGEADQKGSLVAPDRLRFDFTAKGAMSTQQIKKAEEIANE MIEAAKAVYTQDCPLAAAKAIQGLRAVFDETYPDPVRVVSIGVPVSELLDDPSGPAGSLTSVEFC GGTHLRNSSHAGAFVIVTEEAIAKGIRRIVAVTGAEAQKALRKAESLKKCLSVMEAKVKAQTAPNK DVQREIADLGEALATAVIPQWQKDELRETLKSLKKVMDDLDRASKADVQKRVLEKTKQFIDSNPN QPLVILEMESGASAKALNEALKLFKMHSPQTSAMLFTVDNEAGKITCLCQVPQNAANRGLKASE WVQQVSGLMDGKGGGKDVSAQATGKNVGCLQEALQLATSFAQLRLGDVKN |
| **Host** | Wheat Germ (in vitro) |
| **Theoretical MW (kDa)** | 133.2 |

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| **Interspecies Antigen Sequence** | Mouse (96); Rat (95) |
| **Preparation Method** | *in vitro* wheat germ expression system |
| **Purification** | Glutathione Sepharose 4 Fast Flow |
| **Quality Control Testing** | 12.5% SDS-PAGE Stained with Coomassie Blue. |
| **Storage Buffer** | 50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer. |
| **Storage Instruction** | Store at -80°C. Aliquot to avoid repeated freezing and thawing. |
| **Note** | Best use within three months from the date of receipt of this protein. |

## Applications

- Enzyme-linked Immunoabsorbent Assay
- Western Blot (Recombinant protein)
- Antibody Production
- Protein Array

## Gene Info — AARS

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|---|---|
| **Entrez GeneID** | 16 |
| **GeneBank Accession#** | NM_001605.2 |
| **Protein Accession#** | NP_001596.2 |
| **Gene Name** | AARS |
| **Gene Alias** | - |
| **Gene Description** | alanyl-tRNA synthetase |
| **Omim ID** | 601065 |
| **Gene Ontology** | Hyperlink |

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| **Gene Summary** | The human alanyl-tRNA synthetase (AARS) belongs to a family of tRNA synthases, of the class II enzymes. Class II tRNA synthases evolved early in evolution and are highly conserved. This is reflected by the fact that 498 of the 968-residue polypeptide human AARS shares 41% identity witht the E.coli protein. tRNA synthases are the enzymes that interpret the RNA code and attach specific aminoacids to the tRNAs that contain the cognate trinucleotide anticodons. They consist of a catalytic domain which interacts with the amino acid acceptor-T psi C helix of the tRNA, and a second domain which interacts with the rest of the tRNA structure. [provided by RefSeq |
| **Other Designations** | alanine tRNA ligase 1, cytoplasmic |

## Pathway

- Aminoacyl-tRNA biosynthesis

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