

## Rabbit anti-Human AlaRS/AARS1 Polyclonal Antibody | anti-AARS1 antibody

Anti-AlaRS/AARS1 Antibody Picoband

| CATALOG # | HOST   | REACTIVITY | APPLICATIONS                                                                                   |
|-----------|--------|------------|------------------------------------------------------------------------------------------------|
| AAA126343 | Rabbit | Human      | Western Blot, Immunocytochemistry, Immunofluorescence, Flow Cytometry, Functional Assay, ELISA |

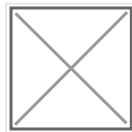
### PRODUCT SYNONYMS

AlaRS/AARS1; Polyclonal Antibody; Anti-AlaRS/AARS1 Antibody Picoband; anti-AARS1 antibody

### PRODUCT SPECIFICATIONS

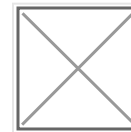
|                                                 |                                                                                                                                                                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                                                                       |
| Reactivity                                      | Human                                                                                                                                                                                                                        |
| Clonality                                       | Polyclonal                                                                                                                                                                                                                   |
| Isotype                                         | Rabbit IgG                                                                                                                                                                                                                   |
| Purity/Purification                             | Immunogen affinity purified.                                                                                                                                                                                                 |
| Form/Format                                     | Lyophilized<br>Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .                                                                                                                     |
| Concentration                                   | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)                                                                                                                                    |
| Applicable Applications for anti-AARS1 antibody | WB (Western Blot), ICC (Immunocytochemistry), IF (Immunofluorescence), FCM/FACS (Flow Cytometry), ELISA                                                                                                                      |
| Reconstitution                                  | Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.                                                                                                                                                    |
| Immunogen                                       | E Coli-derived human AlaRS/AARS1 recombinant protein (Position: R729-N968).                                                                                                                                                  |
| Preparation and Storage                         | Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing. |

### IMAGES



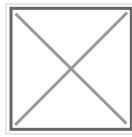
#### IF (Immunofluorescence)

Figure 3. IF analysis of AlaRS/AARS1 using anti-AlaRS/AARS1 antibody (AAA126343).AlaRS/AARS1 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 5ug/mL rabbit anti-AlaRS/AARS1 Antibody (AAA126343) overnight at 4 degree C. DyLight488 Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37 degree C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



#### FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of K562 cells using anti-AlaRS/AARS1 antibody (AAA126343).Overlay histogram showing K562 cells stained with AAA126343 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-AlaRS/AARS1 Antibody (AAA126343, 1 ug/1x10<sup>6</sup> cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-rabbit IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10<sup>6</sup>) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



**WB (Western Blot)**

Figure 1. Western blot analysis of AlaRS/AARS1 using anti-AlaRS/AARS1 antibody (AAA126343). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates, Lane 2: human HepG2 whole cell lysates, Lane 3: human Hela whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-AlaRS/AARS1 antigen affinity purified polyclonal antibody (#AAA126343) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for AlaRS/AARS1 at approximately 107 kDa. The expected band size for AlaRS/AARS1 is at 107 kDa.

**ADDITIONAL INFORMATION**

|                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-AARS1 antibody | An aminoacyl-tRNA synthetase (aaRS or ARS), also called tRNA-ligase, is an enzyme that attaches the appropriate amino acid onto its corresponding tRNA. The human alanyl-tRNA synthetase (AARS) belongs to a family of tRNA synthetases, of the class II enzymes. Class II tRNA synthetases 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 with the E Coli protein. tRNA synthetases 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. |
| Product Categories/Family for anti-AARS1 antibody   | Primary Antibodies, Rabbit Polyclonal Antibodies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**NCBI AND UNIPROT INFORMATION**

|                                  |                                                                                                                                                            |
|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 109148542                                                                                                                                                  |
| NCBI GeneID                      | 16                                                                                                                                                         |
| NCBI Accession #                 | NP_001596.2                                                                                                                                                |
| NCBI GenBank Nucleotide #        | NM_001605.2                                                                                                                                                |
| UniProt Accession #              | P49588; Q53GV7; Q96FA0; A6NF14; B4DR45                                                                                                                     |
| Molecular Weight                 | 109,317 Da                                                                                                                                                 |
| NCBI Official Full Name          | alanine--tRNA ligase, cytoplasmic                                                                                                                          |
| NCBI Official Synonym Full Names | alanyl-tRNA synthetase                                                                                                                                     |
| NCBI Official Symbol             | AARS                                                                                                                                                       |
| NCBI Official Synonym Symbols    | CMT2N                                                                                                                                                      |
| NCBI Protein Information         | alanine--tRNA ligase, cytoplasmic; AARS; alaRS; alanine tRNA ligase 1, cytoplasmic; alanyl-tRNA synthetase, cytoplasmic; renal carcinoma antigen NY-REN-42 |
| UniProt Protein Name             | Alanine--tRNA ligase, cytoplasmic                                                                                                                          |
| UniProt Gene Name                | AARS                                                                                                                                                       |
| UniProt Entry Name               | SYAC_HUMAN                                                                                                                                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

