

**AARS2 (aa478-489) Antibody (internal region)**  
Peptide-affinity purified goat antibody  
Catalog # AF3736a

**Specification**

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**AARS2 (aa478-489) Antibody (internal region) - Product Information**

Application	WB
Primary Accession	<a href="#">O5JTZ9</a>
Other Accession	<a href="#">NP_065796.1</a> , <a href="#">57505</a>
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Concentration	0.5 mg/ml
Isotype	IgG
Calculated MW	107340

**AARS2 (aa478-489) Antibody (internal region) - Additional Information**

Gene ID 57505

**Other Names**

Alanine--tRNA ligase, mitochondrial {ECO:0000255|HAMAP-Rule:MF\_03133}, 6.1.1.7  
{ECO:0000255|HAMAP-Rule:MF\_03133}, Alanyl-tRNA synthetase  
{ECO:0000255|HAMAP-Rule:MF\_03133}, AlaRS {ECO:0000255|HAMAP-Rule:MF\_03133}, AARS2  
{ECO:0000255|HAMAP-Rule:MF\_03133}

**Format**

0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

AARS2 (aa478-489) Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

**AARS2 (aa478-489) Antibody (internal region) - Protein Information**

**Name** AARS2 {ECO:0000255|HAMAP-Rule:MF\_03133}

**Synonyms** AARSL, KIAA1270

**Function**

Catalyzes the attachment of alanine to tRNA(Ala) in a two- step reaction: alanine is first activated by ATP to form Ala-AMP and then transferred to the acceptor end of tRNA(Ala). Also edits incorrectly charged tRNA(Ala) via its editing domain (PubMed:<a

href="http://www.uniprot.org/citations/21549344" target="\_blank">21549344</a>). In presence of high levels of lactate, also acts as a protein lactyltransferase that mediates lactylation of lysine residues in target proteins, such as CGAS (PubMed:<a href="http://www.uniprot.org/citations/39322678" target="\_blank">39322678</a>). Acts as an inhibitor of cGAS/STING signaling by catalyzing lactylation of CGAS, preventing the formation of liquid-like droplets in which CGAS is activated (PubMed:<a href="http://www.uniprot.org/citations/39322678" target="\_blank">39322678</a>).

#### Cellular Location

Mitochondrion {ECO:0000255|HAMAP-Rule:MF\_03133, ECO:0000269|PubMed:21549344}

#### AARS2 (aa478-489) Antibody (internal region) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### AARS2 (aa478-489) Antibody (internal region) - Images



Cell line 143B overexpressing Human AARS2 and probed with AF3736a (mock transfection in second lane). Data obtained from Henna.Tyynismaa, University of Helsinki, Finland.

#### AARS2 (aa478-489) Antibody (internal region) - References

Toward the full set of human mitochondrial aminoacyl-tRNA synthetases: characterization of AspRS and TyrRS. Bonnefond L, Fender A, Rudinger-Thirion J, Giegé R, Florentz C, Sissler M. *Biochemistry*. 2005 Mar 29;44(12):4805-16. PMID: 15779907