

**EARS2 Antibody (C-term)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP7573b****Specification**

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**EARS2 Antibody (C-term) - Product Information**

Application	WB, IHC-P,E
Primary Accession	<a href="#">Q5JPH6</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	495-523

**EARS2 Antibody (C-term) - Additional Information****Gene ID** 124454**Other Names**

Probable glutamate--tRNA ligase, mitochondrial, Glutamyl-tRNA synthetase, GluRS, EARS2, KIAA1970

**Target/Specificity**

This EARS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 495-523 amino acids from the C-terminal region of human EARS2.

**Dilution**WB~~1:1000  
IHC-P~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

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

**Precautions**

EARS2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**EARS2 Antibody (C-term) - Protein Information****Name** EARS2 ([HGNC:29419](#))**Function** Non-discriminating glutamyl-tRNA synthetase that catalyzes aminoacylation of both mitochondrial tRNA(Glu) and tRNA(Gln) and participates in RNA aminoacylation for mitochondrial

protein translation (PubMed:[19805282](#)). Attaches glutamate to tRNA(Glu) or tRNA(Gln) in a two-step reaction: glutamate is first activated by ATP to form Glu-AMP and then transferred to the acceptor end of tRNA(Glu) or tRNA(Gln) (PubMed:[19805282](#)). In vitro, cytoplasmic tRNA(Gln) is slightly glutamylated, but with low activity (PubMed:[19805282](#)).

#### Cellular Location

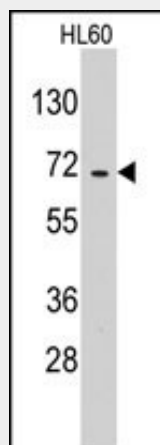
Mitochondrion matrix

#### EARS2 Antibody (C-term) - Protocols

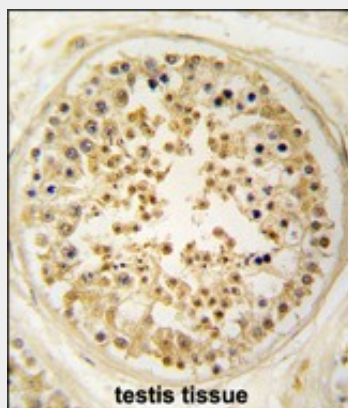
Provided below are standard protocols that you may find useful for product applications.

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

#### EARS2 Antibody (C-term) - Images



Western blot analysis of anti-EARS2 Pab (Cat.#AP7573b) in HL60 cell line lysates (35ug/lane).EARS2 (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human testis tissue reacted with EARS2 antibody (C-term)

(Cat.#AP7573b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.

#### **EARS2 Antibody (C-term) - Background**

Glutamyl-tRNA synthetase (GluRS or EARS2) a class I aminoacyl-tRNA synthetase (aaRS), is primarily responsible for the glutamylation of tRNAGlu. It is part of the "minimal set" of seventeen aaRSs found in every living organism and its presence is essential for the viability of cells.

#### **EARS2 Antibody (C-term) - References**

Bonnefond, L., Biochemistry 44 (12), 4805-4816 (2005)

#### **EARS2 Antibody (C-term) - Citations**

- [Altered 2-thiouridylation impairs mitochondrial translation in reversible infantile respiratory chain deficiency.](#)