

**EARS2 Antibody (Center) Blocking Peptide**  
Synthetic peptide  
Catalog # BP7573c**Specification****EARS2 Antibody (Center) Blocking Peptide - Product Information**Primary Accession [Q5JPH6](#)**EARS2 Antibody (Center) Blocking Peptide - Additional Information****Gene ID** 124454**Other Names**

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

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody <a href=/products/AP7573c>AP7573c</a> was selected from the Center region of human EARS2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**EARS2 Antibody (Center) Blocking Peptide - 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:<a href="http://www.uniprot.org/citations/19805282" target="\_blank">19805282</a>). 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:<a href="http://www.uniprot.org/citations/19805282" target="\_blank">19805282</a>). In vitro, cytoplasmic tRNA(Gln) is slightly glutamylated, but with low activity (PubMed:<a href="http://www.uniprot.org/citations/19805282" target="\_blank">19805282</a>).

**Cellular Location**

Mitochondrion matrix

### **EARS2 Antibody (Center) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

### **EARS2 Antibody (Center) Blocking Peptide - Images**

### **EARS2 Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - References**

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