

EARS2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP7573b**Specification**

EARS2 Antibody (C-term) Blocking Peptide - Product InformationPrimary Accession [Q5JPH6](#)**EARS2 Antibody (C-term) 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 [AP7573b](#) was selected from the C-term 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 (C-term) 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:<http://www.uniprot.org/citations/19805282> target="_blank">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:<http://www.uniprot.org/citations/19805282> target="_blank">19805282). In vitro, cytoplasmic tRNA(Gln) is slightly glutamylated, but with low activity (PubMed:<http://www.uniprot.org/citations/19805282> target="_blank">19805282).

Cellular Location

Mitochondrion matrix

EARS2 Antibody (C-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

EARS2 Antibody (C-term) Blocking Peptide - Images

EARS2 Antibody (C-term) 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 (C-term) Blocking Peptide - References

Bonnefond, L., Biochemistry 44 (12), 4805-4816 (2005) Daniel Y. Dubois, Jacques Lapointe and Shun-ichi Sekine, in Aminoacyl-tRNA Synthetases, Michael Ibba, ed (2005).