

**MRPL41 Antibody (N-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP13125a****Specification**

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**MRPL41 Antibody (N-term) Blocking Peptide - Product Information**Primary Accession [Q8IXM3](#)**MRPL41 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 64975**Other Names**

39S ribosomal protein L41, mitochondrial, L41mt, MRP-L41, 39S ribosomal protein L27 homolog, Bcl-2-interacting mitochondrial ribosomal protein L41, Cell proliferation-inducing gene 3 protein, MRP-L27 homolog, MRPL41, BMRP, MRPL27, RPML27

**Target/Specificity**

The synthetic peptide sequence used to generate the antibody AP13125a was selected from the N-term region of MRPL41. 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.

**MRPL41 Antibody (N-term) Blocking Peptide - Protein Information****Name** MRPL41**Synonyms** BMRP, MRPL27, RPML27**Function**

Component of the mitochondrial ribosome large subunit (PubMed:<a href="http://www.uniprot.org/citations/28892042" target="\_blank">28892042</a>, PubMed:<a href="http://www.uniprot.org/citations/25838379" target="\_blank">25838379</a>, PubMed:<a href="http://www.uniprot.org/citations/25278503" target="\_blank">25278503</a>). Also involved in apoptosis and cell cycle (PubMed:<a href="http://www.uniprot.org/citations/16024796" target="\_blank">16024796</a>, PubMed:<a href="http://www.uniprot.org/citations/16256947" target="\_blank">16256947</a>). Enhances p53/TP53 stability, thereby contributing to p53/TP53-induced apoptosis in response to growth-inhibitory condition. Enhances p53/TP53 translocation to the mitochondria. Has the ability to arrest the cell cycle at the G1 phase, possibly

by stabilizing the CDKN1A and CDKN1B (p27Kip1) proteins (PubMed:<a href="http://www.uniprot.org/citations/16024796" target="\_blank">16024796</a>).

**Cellular Location**

Mitochondrion

**Tissue Location**

Present in kidney, liver, thymus and testis, and at lower level in brain and spleen (at protein level)

**MRPL41 Antibody (N-term) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**MRPL41 Antibody (N-term) Blocking Peptide - Images****MRPL41 Antibody (N-term) Blocking Peptide - Background**

Mammalian mitochondrial ribosomal proteins are encoded by nuclear genes and help in protein synthesis within the mitochondrion. Mitochondrial ribosomes (mitoribosomes) consist of a small 28S subunit and a large 39S subunit. They have an estimated 75% protein to rRNA composition compared to prokaryotic ribosomes, where this ratio is reversed. Another difference between mammalian mitoribosomes and prokaryotic ribosomes is that the latter contain a 5S rRNA. Among different species, the proteins comprising the mitoribosome differ greatly in sequence, and sometimes in biochemical properties, which prevents easy recognition by sequence homology. This gene encodes a 39S subunit protein that belongs to the YmL27 ribosomal protein family.

**MRPL41 Antibody (N-term) Blocking Peptide - References**

Kim, M.J., et al. Biochem. Biophys. Res. Commun. 338(2):1179-1184(2005) Yoo, Y.A., et al. Mol. Cell. Biol. 25(15):6603-6616(2005) Chintharlapalli, S.R., et al. J. Cell. Biochem. 94(3):611-626(2005) Humphray, S.J., et al. Nature 429(6990):369-374(2004) Zhang, Z., et al. Genomics 81(5):468-480(2003)