



## **OPA1**(form S1) Blocking Peptide (C-term)

Synthetic peptide Catalog # BP20727c

## **Specification**

OPA1(form S1) Blocking Peptide (C-term) - Product Information

Primary Accession Other Accession 060313

Q2TA68, P58281, Q5U3A7, Q5F499

OPA1(form S1) Blocking Peptide (C-term) - Additional Information

**Gene ID** 4976

### **Other Names**

Dynamin-like 120 kDa protein, mitochondrial, Optic atrophy protein 1, Dynamin-like 120 kDa protein, form S1, OPA1, KIAA0567

#### Target/Specificity

The synthetic peptide sequence is selected from aa 895-909 of HUMAN OPA1

### **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.

OPA1(form S1) Blocking Peptide (C-term) - Protein Information

## Name OPA1

## **Function**

Dynamin-related GTPase that is essential for normal mitochondrial morphology by

# OPA1(form S1) Blocking Peptide (C-term) - Background

Dynamin-related GTPase required for mitochondrial fusion and regulation of apoptosis. May form a diffusion barrier for proteins stored in mitochondrial cristae. Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space.

## OPA1(form S1) Blocking Peptide (C-term) - References

Nagase T.,et al.DNA Res. 5:31-39(1998). Wang W.,et al.Nucleic Acids Res. 39:44-58(2011). Muzny D.M.,et al.Nature 440:1194-1198(2006). Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases. Delettre C.,et al.Hum. Genet. 109:584-591(2001).

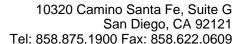


regulating the equilibrium between

mitochondrial fusion and mitochondrial fission (PubMed:<a href="http://www.unipr ot.org/citations/16778770" target=" blank">16778770</a>, PubMed:<a href="http://www.uniprot.org/ci tations/17709429" target=" blank">17709429</a>, PubMed:<a href="http://www.uniprot.org/ci tations/20185555" target=" blank">20185555</a>, PubMed:<a href="http://www.uniprot.org/ci tations/24616225" target=" blank">24616225</a>. PubMed:<a href="http://www.uniprot.org/ci tations/28746876" target=" blank">28746876</a>). Coexpression of isoform 1 with shorter alternative products is required for optimal activity in promoting mitochondrial fusion (PubMed:<a href="http://www.uniprot.org/c itations/17709429" target=" blank">17709429</a>). Binds lipid membranes enriched in negatively charged phospholipids, such as cardiolipin, and promotes membrane tubulation (PubMed:<a href="http://www.uniprot.org/c itations/20185555" target=" blank">20185555</a>). The intrinsic GTPase activity is low, and is strongly increased by interaction with lipid membranes (PubMed:<a href="http://www. uniprot.org/citations/20185555" target=" blank">20185555</a>). Plays a role in remodeling cristae and the release of cytochrome c during apoptosis (By similarity). Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space (By similarity). Plays a role in mitochondrial genome maintenance (PubMed:<a href="http://www .uniprot.org/citations/20974897" target=" blank">20974897</a>, PubMed:<a href="http://www.uniprot.org/ci tations/18158317" target=" blank">18158317</a>).

### **Cellular Location**

Mitochondrion inner membrane; Single-pass membrane protein. Mitochondrion intermembrane space {ECO:0000250|UniProtKB:P58281}. Mitochondrion membrane. Note=Detected at contact sites between endoplasmic





reticulum and mitochondrion membranes

## **Tissue Location**

Highly expressed in retina. Also expressed in brain, testis, heart and skeletal muscle. Isoform 1 expressed in retina, skeletal muscle, heart, lung, ovary, colon, thyroid gland, leukocytes and fetal brain. Isoform 2 expressed in colon, liver, kidney, thyroid gland and leukocytes. Low levels of all isoforms expressed in a variety of tissues.

## **OPA1**(form S1) Blocking Peptide (C-term) - Protocols

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

• Blocking Peptides