

UQCRC1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP18967a**Specification**

UQCRC1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P31930](#)**UQCRC1 Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 7384**Other Names**

Cytochrome b-c1 complex subunit 1, mitochondrial, Complex III subunit 1, Core protein I, Ubiquinol-cytochrome-c reductase complex core protein 1, UQCRC1

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.

UQCRC1 Antibody (N-term) Blocking Peptide - Protein Information**Name** UQCRC1**Function**

Component of the ubiquinol-cytochrome c oxidoreductase, a multisubunit transmembrane complex that is part of the mitochondrial electron transport chain which drives oxidative phosphorylation. The respiratory chain contains 3 multisubunit complexes succinate dehydrogenase (complex II, CII), ubiquinol-cytochrome c oxidoreductase (cytochrome b-c1 complex, complex III, CIII) and cytochrome c oxidase (complex IV, CIV), that cooperate to transfer electrons derived from NADH and succinate to molecular oxygen, creating an electrochemical gradient over the inner membrane that drives transmembrane transport and the ATP synthase. The cytochrome b-c1 complex catalyzes electron transfer from ubiquinol to cytochrome c, linking this redox reaction to translocation of protons across the mitochondrial inner membrane, with protons being carried across the membrane as hydrogens on the quinol. In the process called Q cycle, 2 protons are consumed from the matrix, 4 protons are released into the intermembrane space and 2 electrons are passed to cytochrome c (By similarity). The 2 core subunits UQCRC1/QCR1 and UQCRC2/QCR2 are homologous to the 2 mitochondrial-processing peptidase (MPP) subunits beta-MPP and alpha-MPP respectively, and they seem to have preserved their MPP processing properties (By similarity). May be involved in the in situ processing of UQCRFS1 into the mature Rieske protein and its mitochondrial targeting sequence (MTS)/subunit 9 when incorporated into complex III (Probable). Seems to play an important role in the maintenance of

proper mitochondrial function in nigral dopaminergic neurons (PubMed:33141179).

Cellular Location

Mitochondrion inner membrane {ECO:0000250|UniProtKB:P07256}; Peripheral membrane protein {ECO:0000250|UniProtKB:P07256}; Matrix side {ECO:0000250|UniProtKB:P07256}

Tissue Location

Expressed in brain, including substantia nigra, striatum, cortex and cerebellum, and in spinal cord, heart, kidney, liver and muscle.

UQCRC1 Antibody (N-term) Blocking Peptide - Protocols

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

- [Blocking Peptides](#)

UQCRC1 Antibody (N-term) Blocking Peptide - Images**UQCRC1 Antibody (N-term) Blocking Peptide - Background**

This is a component of the ubiquinol-cytochrome c reductase complex (complex III or cytochrome b-c1 complex), which is part of the mitochondrial respiratory chain. This protein may mediate formation of the complex between cytochromes c and c1.

UQCRC1 Antibody (N-term) Blocking Peptide - References

Martins-de-Souza, D., et al. J Psychiatr Res 43(11):978-986(2009) Martins-de-Souza, D., et al. Eur Arch Psychiatry Clin Neurosci 259(3):151-163(2009) Ewing, R.M., et al. Mol. Syst. Biol. 3, 89 (2007) :Kulawiec, M., et al. Cancer Biol. Ther. 5(8):967-975(2006) Aboulaich, N., et al. Biochem. J. 383 (PT 2), 237-248 (2004) :