

SEPN1 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP12452b**Specification**

SEPN1 Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [Q9NZV5](#)**SEPN1 Antibody (C-term) Blocking peptide - Additional Information****Gene ID** 57190**Other Names**

Selenoprotein N, SelN, SEPN1, SELN

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.

SEPN1 Antibody (C-term) Blocking peptide - Protein Information**Name** SELENON {ECO:0000303|PubMed:27645994, ECO:0000312|HGNC:HGNC:15999}**Function**

[Isoform 2]: Plays an important role in cell protection against oxidative stress and in the regulation of redox-related calcium homeostasis. Regulates the calcium level of the ER by protecting the calcium pump ATP2A2 against the oxidoreductase ERO1A-mediated oxidative damage. Within the ER, ERO1A activity increases the concentration of H₂O₂, which attacks the luminal thiols in ATP2A2 and thus leads to cysteinyl sulfenic acid formation (-SOH) and SEPN1 reduces the SOH back to free thiol (-SH), thus restoring ATP2A2 activity (PubMed:25452428). Acts as a modulator of ryanodine receptor (RyR) activity: protects RyR from oxidation due to increased oxidative stress, or directly controls the RyR redox state, regulating the RyR-mediated calcium mobilization required for normal muscle development and differentiation (PubMed:19557870, PubMed:18713863).

Cellular Location

[Isoform 2]: Endoplasmic reticulum membrane

Tissue Location

Isoform 1 and isoform 2 are expressed in skeletal muscle, brain, lung and placenta. Isoform 2 is

also expressed in heart, diaphragm and stomach.

SEPN1 Antibody (C-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

SEPN1 Antibody (C-term) Blocking peptide - Images

SEPN1 Antibody (C-term) Blocking peptide - Background

This gene encodes a selenoprotein, which contains a selenocysteine (Sec) residue at its active site. The selenocysteine is encoded by the UGA codon that normally signals translation termination. The 3' UTR of selenoprotein genes have a common stem-loop structure, the sec insertion sequence (SECIS), that is necessary for the recognition of UGA as a Sec codon rather than as a stop signal. Mutations in this gene cause the classical phenotype of multisystemic disease and congenital muscular dystrophy with spinal rigidity and restrictive respiratory syndrome. Two alternatively spliced transcript variants encoding distinct isoforms have been found for this gene.

SEPN1 Antibody (C-term) Blocking peptide - References

Arbogast, S., et al. Ann. Neurol. 65(6):677-686(2009) Maiti, B., et al. Hum. Mutat. 30(3):411-416(2009) Jurynek, M.J., et al. Proc. Natl. Acad. Sci. U.S.A. 105(34):12485-12490(2008) Lin, L., et al. PLoS Genet. 4 (10), E1000225 (2008) :Wu, C., et al. Proteomics 7(11):1775-1785(2007)