

SLC25A14 Antibody (N-term) Blocking peptide
Synthetic peptide
Catalog # BP12813a**Specification**

SLC25A14 Antibody (N-term) Blocking peptide - Product InformationPrimary Accession [O95258](#)**SLC25A14 Antibody (N-term) Blocking peptide - Additional Information**

Gene ID 9016

Other Names

Brain mitochondrial carrier protein 1, BMCP-1, Mitochondrial uncoupling protein 5, UCP 5, Solute carrier family 25 member 14, SLC25A14, BMCP1, UCP5

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.

SLC25A14 Antibody (N-term) Blocking peptide - Protein InformationName SLC25A14 ([HGNC:10984](#))**Function**

Transports inorganic anions (sulfate, sulfite, thiosulfate and phosphate) and, to a lesser extent, a variety of dicarboxylates (e.g. malonate, malate and citramalate) and, even more so, aspartate and glutamate and tricarboxylates (PubMed:31356773). May catalyze the export of sulfite and thiosulfate (the hydrogen sulfide degradation products) from the mitochondria, thereby modulating the level of the hydrogen sulfide (Probable). Also can mediate a very low unidirectional transport of anions including sulfate, phosphate, (S)-malate, citrate, L-aspartate and L-glutamate (PubMed:31356773). Maintains oxidative balance (through uncoupling activities) and ATP production (by modifying mitochondrial membrane potential) (PubMed:20600837). Is able to transport protons across lipid membranes (PubMed:22524567, PubMed:26182433). Also exhibits transmembrane chloride transport activity to a lesser extent (PubMed:22524567, PubMed:26182433). May modify mitochondrial respiratory efficiency and mitochondrial oxidant production (By similarity).

Cellular Location

Mitochondrion inner membrane; Multi-pass membrane protein

Tissue Location

Mainly expressed in brain (PubMed:10928996). Some expression in testis and pituitary (PubMed:10928996)

SLC25A14 Antibody (N-term) Blocking peptide - Protocols

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

- [Blocking Peptides](#)

SLC25A14 Antibody (N-term) Blocking peptide - Images**SLC25A14 Antibody (N-term) Blocking peptide - Background**

Mitochondrial uncoupling proteins (UCP) are members of the larger family of mitochondrial anion carrier proteins (MACP). UCPs separate oxidative phosphorylation from ATP synthesis with energy dissipated as heat, also referred to as the mitochondrial proton leak. UCPs facilitate the transfer of anions from the inner to the outer mitochondrial membrane and the return transfer of protons from the outer to the inner mitochondrial membrane. They also reduce the mitochondrial membrane potential in mammalian cells. Tissue specificity occurs for the different UCPs and the exact methods of how UCPs transfer H^+/OH^- are not known. UCPs contain the three homologous protein domains of MACPs. This gene is widely expressed in many tissues with the greatest abundance in brain and testis. The gene product has an N-terminal hydrophobic domain that is not present in other UCPs. Two splice variants have been found for this gene.

SLC25A14 Antibody (N-term) Blocking peptide - References

Santandreu, F.M., et al. Cell. Physiol. Biochem. 24 (5-6), 379-390 (2009) : Nakase, T., et al. Neuropathology 27(5):442-447(2007) Yasuno, K., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 144B (2), 250-253 (2007) : Ho, P.W., et al. J. Neurosci. Res. 84(6):1358-1366(2006) Ross, M.T., et al. Nature 434(7031):325-337(2005)