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GPI Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP9786b

Specification

GPI Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P06744

GPI Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 2821

Other Names
Glucose-6-phosphate isomerase, GPI, Autocrine motility factor, AMF, Neuroleukin, NLK, Phosphoglucose isomerase, PGI, Phosphohexose isomerase, PHI, Sperm antigen 36, SA-36, GPI

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.

GPI Antibody (C-term) Blocking Peptide - Protein Information

Name GPI {ECO:0000303|PubMed:2387591, ECO:0000312|HGNC:HGNC:4458}

Function
In the cytoplasm, catalyzes the conversion of glucose-6- phosphate to fructose-6-phosphate, the second step in glycolysis, and the reverse reaction during gluconeogenesis (PubMed:28803808). Besides it's role as a glycolytic enzyme, also acts as a secreted cytokine: acts as an angiogenic factor (AMF) that stimulates endothelial cell motility (PubMed:11437381). Acts as a neurotrophic factor, neuroleukin, for spinal and sensory neurons (PubMed:3352745, PubMed:11004567). It is secreted by lectin-stimulated T-cells and induces immunoglobulin secretion (PubMed:3352745, PubMed:11004567).

Cellular Location
Cytoplasm. Secreted

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GPI Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

GPI Antibody (C-term) Blocking Peptide - Images

GPI Antibody (C-term) Blocking Peptide - Background

GPI belongs to the GPI family whose members encode multifunctional phosphoglucose isomerase proteins involved in energy pathways. The protein encoded by this gene is a dimeric enzyme that catalyzes the reversible isomerization of glucose-6-phosphate and fructose-6-phosphate. The protein functions in different capacities inside and outside the cell. In the cytoplasm, the gene product is involved in glycolysis and gluconeogenesis, while outside the cell it functions as a neurotrophic factor for spinal and sensory neurons. Defects in this gene are the cause of nonspherocytic hemolytic anemia and a severe enzyme deficiency can be associated with hydrops fetalis, immediate neonatal death and neurological impairment.

GPI Antibody (C-term) Blocking Peptide - References

Shih, W.L., et al. Cancer Lett. 290(2):223-237(2010)Davila, S., et al. Genes Immun. 11(3):232-238(2010)Araki, K., et al. J. Biol. Chem. 284(47):32305-32311(2009)Tsutsumi, S., et al. Int. J. Oncol. 35(5):1117-1121(2009)Funasaka, T., et al. Cancer Res. 69(13):5349-5356(2009)Yanagawa, T., et al. J. Biol. Chem. 280(11):10419-10426(2005)Haga, A., et al. Biochim. Biophys. Acta 1480 (1-2), 235-244 (2000)