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UAP1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17782b

Specification

UAP1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession	Q16222

UAP1 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 6675

Other Names
UDP-N-acetylhexosamine pyrophosphorylase, Antigen X, AGX, Sperm-associated antigen 2, UDP-N-acetylgalactosamine pyrophosphorylase, AGX-1, UDP-N-acetylglucosamine pyrophosphorylase, AGX-2, UAP1, SPAG2

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.

UAP1 Antibody (C-term) Blocking Peptide - Protein Information

Name UAP1 {ECO:0000303|PubMed:9603950, ECO:0000312|HGNC:HGNC:12457}

Function
Catalyzes the last step in biosynthesis of uridine diphosphate-N-acetylglucosamine (UDP-GlcNAc) by converting UTP and glucosamine 1-phosphate (GlcNAc-1-P) to the sugar nucleotide (PubMed:9603950, PubMed:9765219). Also converts UTP and galactosamine 1-phosphate (GalNAc-1-P) into uridine diphosphate-N-acetylgalactosamine (UDP-GalNAc) (PubMed:9765219). In addition to its role in metabolism, acts as a regulator of innate immunity in response to virus infection by mediating pyrophosphorylation of IRF3: catalyzes pyrophosphorylation of IRF3 phosphorylated at 'Ser-386' by TBK1, promoting IRF3 dimerization and activation, leading to type I interferon responses (PubMed:36603579).

Cellular Location
Cytoplasm, cytosol. Note=In spermatozoa, localized to the principal piece of the tail, the neck region of the head and to a lesser extent, the midpiece of the tail.

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Tissue Location
Widely expressed (PubMed:8025165). Expressed at low level in placenta, muscle and liver (PubMed:8025165) [Isoform AGX2]: Isoform AGX2 is more abundant than isoform AGX1 in somatic tissue.

UAP1 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

UAP1 Antibody (C-term) Blocking Peptide - Images

UAP1 Antibody (C-term) Blocking Peptide - Background

UAP1 converts UDP and GlcNAc-1-P into UDP-GlcNAc, and UDP and GalNAc-1-P into UDP-GalNAc. Isoform AGX1 has 2 to 3 times higher activity towards GalNAc-1-P, while isoform AGX2 has 8 times more activity towards GlcNAc-1-P.

UAP1 Antibody (C-term) Blocking Peptide - References

Ehret, G.B., et al. Eur. J. Hum. Genet. 17(12):1650-1657(2009)Wang, A.G., et al. Biochem. Biophys. Res. Commun. 345(3):1022-1032(2006)Peneff, C., et al. EMBO J. 20(22):6191-6202(2001)Wang-Gillam, A., et al. J. Biol. Chem. 273(42):27055-27057(1998)Diekman, A.B., et al. Mol. Reprod. Dev. 50(3):284-293(1998)