

Polyclonal Antibody to UDP-N-acetylglucosamine pyrophosphorylase 1 (UAP1)



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Polyclonal Antibody to UDP-N-acetylglucosamine pyrophosphorylase 1 (UAP1)

Catalog No : IMX-5287
Formulation : 100 ug in 200 ul PBS containing 0.2% gelatin and 0.05% sodium azide. Sodium azide is highly toxic.
Isotype : Rabbit IgG
Clone : NA
Purification : Protein G Chromatography
Species React : Human, Bovine
Predicted React : Mouse, Rat, Dog
Host : Rabbit

Application
Peptide ELISA: 1:100-1:1000
Storage
Store at 4°C, stable for 6 months. For long-term storage, aliquot and store at -20°C.

Background

Imgenex's IMX line of antibodies are ELISA positive samples that are still undergoing R&D testing. Available testing data will be listed under the Applications section.

Principal Names: UDP-N-acetylglucosamine pyrophosphorylase 1; UDP-N-acetylhexosamine pyrophosphorylase 1; AGX1; AGX; Antigen X; SPAG2; Sperm-associated antigen 2; Official Gene Symbol- UAP1 Gen Bank Accession Number- NP_003106 Gene ID- 6675(human) Gene Map Locus- 1q23.3 (Human) UAP1 is a 56KDa isoform which catalyzes the final step of UDP-N-acetylglucosamine (UDP-GlcNAc) biosynthesis from fructose-6-phosphate. UDP-GlcNAc, the activated form of GlcNAc moiety is used as a key precursor in N-linked glycosylation and the glycosylphosphatidylinositol (GPI)-anchor of cellular proteins. Crystallization studies revealed UAP1 is composed of a large central core flanked by two smaller extra domains. The central main domain displays a α/α structure resembling the Rossmann fold. Northern Blot analysis detected abundant expression of UAP1 in testis and sperm with a low expression in placenta, muscle and liver. It is implicated in antibody-mediated infertility in males.

Antigen

Amino acids 20-35 (RFWNELEEAQQVELYA) of human UAP1 protein were used as the immunogen.

Application Notes

The NCBI accession number for UAP1 is Q16222. The amino acid sequence used is 100% homologous in human and bovine, 93% in dog, 87% in mouse and 80% in rat.

Genebank Info (Protein)

NP_003106

Genebank Info (Nucleotide)

NP_003106

Reference

1. Diekman, A.B. and Goldberg, E. Characterization of a human antigen with sera from infertile patients. Biol. Reprod. 50 (5), 1087-1093 (1994).
2. Mio, T., Yabe, T., Arisawa, M. and Yamada-Okabe, H. The eukaryotic UDP-N-acetylglucosamine pyrophosphorylases. Gene cloning, protein expression, and catalytic mechanism. J. Biol. Chem. 273 (23), 14392-14397 (1998).
3. Peneff, C et al EMBO J. 20(22):6191-202 (2001 Nov 15)

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