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ZP4 Antibody (C-term) Blocking peptide

Synthetic peptide
Catalog # BP12724b

Specification

ZP4 Antibody (C-term) Blocking peptide - Product Information

Primary Accession Q12836

ZP4 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 57829

Other Names
Zona pellucida sperm-binding protein 4, Zona pellucida glycoprotein 4, Zp-4, Zona pellucida protein B, Processed zona pellucida sperm-binding protein 4, ZP4, ZPB

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.

ZP4 Antibody (C-term) Blocking peptide - Protein Information

Name ZP4

Synonyms ZPB

Function
Component of the zona pellucida, an extracellular matrix surrounding oocytes which mediates sperm binding, induction of the acrosome reaction and prevents post-fertilization polyspermy. The zona pellucida is composed of 3 to 4 glycoproteins, ZP1, ZP2, ZP3, and ZP4. ZP4 may act as a sperm receptor.

Cellular Location
[Processed zona pellucida sperm-binding protein 4]: Zona pellucida {ECO:0000250|UniProtKB:Q00193}

Tissue Location
Expressed in oocytes.

ZP4 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

ZP4 Antibody (C-term) Blocking peptide - Images

ZP4 Antibody (C-term) Blocking peptide - Background

The zona pellucida is an extracellular matrix thatsurrounds the oocyte and early embryo. It is composed primarily ofthree or four glycoproteins with various functions duringfertilization and preimplantation development. The nascent proteincontains a N-terminal signal peptide sequence, a conserved ZPdomain, a consensus furin cleavage site, and a C-terminaltransmembrane domain. It is hypothesized that furin cleavageresults in release of the mature protein from the plasma membranefor subsequent incorporation into the zona pellucida matrix.However, the requirement for furin cleavage in this process remainscontroversial based on mouse studies. Previously, this gene hasbeen referred to as ZP1 or ZPB and thought to have similarfunctions as mouse Zp1. However, a human gene with highersimilarity and chromosomal synteny to mouse Zp1 has been assignedthe symbol ZP1 and this gene has been assigned the symbol ZP4.

ZP4 Antibody (C-term) Blocking peptide - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :McCauley, J.L., et al. Genes Immun. 10(7):624-630(2009)Nakano, M., et al. Proc. Natl. Acad. Sci. U.S.A. 106(31):12838-12842(2009)Choudhury, S., et al. J. Reprod. Immunol. 79(2):137-147(2009)Chiu, P.C., et al. Biol. Reprod. 79(5):869-877(2008)