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ZP3 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP17235b

Specification

ZP3 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession P21754

ZP3 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 7784

Other Names
Zona pellucida sperm-binding protein 3, Sperm receptor, ZP3A/ZP3B, Zona pellucida glycoprotein 3, Zp-3, Zona pellucida protein C, Processed zona pellucida sperm-binding protein 3, ZP3, ZP3A, ZP3B, ZPC

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.

ZP3 Antibody (C-term) Blocking Peptide - Protein Information

Name ZP3

Synonyms ZP3A, ZP3B, ZPC

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. ZP3 is essential for sperm binding and zona matrix formation.

Cellular Location
[Processed zona pellucida sperm-binding protein 3]: Zona pellucida

Tissue Location
Expressed in oocytes (at protein level).

ZP3 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

ZP3 Antibody (C-term) Blocking Peptide - Images

ZP3 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 protein encodedby this gene is a structural component of the zona pellucida andfunctions in primary binding and induction of the sperm acrosomereaction. The nascent protein contains a N-terminal signal peptidesequence, a conserved ZP domain, a C-terminal consensus furincleavage site, and a transmembrane domain. It is hypothesized thatfurin cleavage results in release of the mature protein from theplasma membrane for subsequent incorporation into the zonapellucida matrix. However, the requirement for furin cleavage inthis process remains controversial based on mouse studies. Avariation in the last exon of this gene has previously served asthe basis for an additional ZP3 locus; however, sequence andliterature review reveals that there is only one full-length ZP3locus in the human genome. Another locus encoding a bipartitetranscript designated POMZP3 contains a duplication of the lastfour exons of ZP3, including the above described variation, andmaps closely to this gene.

ZP3 Antibody (C-term) Blocking Peptide - References

Davila, S., et al. Genes Immun. 11(3):232-238(2010)Bansal, P., et al. Biol. Reprod. 81(1):7-15(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)Tormala, R.M., et al. Mol. Cell. Endocrinol. 289 (1-2), 10-15 (2008) :