

**ZP3 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP17235b****Specification**

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**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**

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 that surrounds the oocyte and early embryo. It is composed primarily of three or four glycoproteins with various functions during fertilization and preimplantation development. The protein encoded by this gene is a structural component of the zona pellucida and functions in primary binding and induction of the sperm acrosome reaction. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a C-terminal consensus furin cleavage site, and a transmembrane domain. It is hypothesized that furin cleavage results in release of the mature protein from the plasma membrane for subsequent incorporation into the zona pellucida matrix. However, the requirement for furin cleavage in this process remains controversial based on mouse studies. A variation in the last exon of this gene has previously served as the basis for an additional ZP3 locus; however, sequence and literature review reveals that there is only one full-length ZP3 locus in the human genome. Another locus encoding a bipartite transcript designated POMZP3 contains a duplication of the last four exons of ZP3, including the above described variation, and maps 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) :