



## Human ZP3 peptide (DAG-P1262)

This product is for research use only and is not intended for diagnostic use.

### PRODUCT INFORMATION

#### Antigen Description

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. [provided by RefSeq, Jul 2008]

<b>Specificity</b>	Oocytes.
<b>Purity</b>	70 - 90% by HPLC.
<b>Conjugate</b>	Unconjugated
<b>Sequence Similarities</b>	Belongs to the ZP domain family. ZPC subfamily. Contains 1 ZP domain.
<b>Format</b>	Liquid
<b>Preservative</b>	None
<b>Storage</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. Information available upon request.

### GENE INFORMATION

<b>Gene Name</b>	<a href="#">ZP3 zona pellucida glycoprotein 3 (sperm receptor) [ Homo sapiens (human) ]</a>
<b>Official Symbol</b>	ZP3
<b>Synonyms</b>	ZP3; zona pellucida glycoprotein 3 (sperm receptor); ZPC; ZP3A; ZP3B; Zp-3; zona pellucida sperm-binding protein 3; ZP3A/ZP3B; sperm receptor; zona pellucida protein C; zona pellucida glycoprotein 3B; zona pellucida glycoprotein ZP3; zona pellucida glycoprotein 3A (sperm receptor);
<b>Entrez Gene ID</b>	<a href="#">7784</a>
<b>mRNA Refseq</b>	<a href="#">NM_001110354.1</a>
<b>Protein Refseq</b>	<a href="#">NP_001103824.1</a>
<b>UniProt ID</b>	P21754
<b>Chromosome Location</b>	7q11.23
<b>Pathway</b>	Fertilization, organism-specific biosystem; Interaction With The Zona Pellucida, organism-specific biosystem; Ovarian Infertility Genes, organism-specific biosystem; Reproduction, organism-specific biosystem;
<b>Function</b>	acrosin binding; carbohydrate binding; manganese ion transmembrane transporter activity; protein binding; signal transducer activity; store-operated calcium channel activity;