Zona Pellucida Sperm-Binding Protein 3 (ZP3) ELISA Kit for Mouse

PRODUCT OVERVIEW

Product Name	Zona pellucida sperm-binding protein 3 (ZP3), ELISA Kit
Full Product Name	Mouse Zona pellucida sperm-binding protein 3 (ZP3) ELISA Kit
Product Gene Name	ZP3 elisa kit
Species Reactivity	Mouse
Samples	Serum, plasma, Cell Culture Supernatants, body fluid and tissue homogenate
Preparation and Storage	Store all reagents at 2-8 degree C.
Molecular Weight	41,272 Da
OMIM	182889
Sample Preparation	We suggest pre-experimenting with neat (undiluted) samples, 1:2 or 1:4 dilutions. Please avoid diluting your samples more than 1:10 as it would exceed the dilution limit set for this kit. If the expected concentration of the target is beyond the detection range of the kit, please contact our technical support team
Product Categories/Family for ZP3 elisa kit	Cell Biology
ISO Certification	Manufactured in an ISO 13485:2016 Certified Laboratory.
Related Product Information for ZP3 elisa kit	MBS7204374 is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Zona pellucida sperm-binding protein 3 (ZP3) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing ZP3. The ELISA analytical biochemical technique of the MBS7204374 kit is based on ZP3 antibody-ZP3 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect ZP3 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, ZP3. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of ZP3 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ZP3. It may not necessarily be applicable to this product.

NCBI GI #	160358850
NCBI GeneID	7784
NCBI Accession #	NP_001103824.1
UniProt Secondary Accession #	Q06633; Q29RW0
UniProt Related Accession #	P21754
GenBank Nucleotide #	NM_001110354.1
NCBI Official Full Name	zona pellucida sperm-binding protein 3 isoform 1
NCBI Official Synonym Full Names	zona pellucida glycoprotein 3 (sperm receptor)
NCBI Official Symbol	ZP3

NCBI Official Synonym Symbols	ZPC; ZP3A; ZP3B; Zp-3
UniProt Protein Name	Zona pellucida sperm-binding protein 3
UniProt Synonym Protein Names	Sperm receptor; ZP3A/ZP3B; Zona pellucida glycoprotein 3; Zp-3; Zona pellucida protein CCleaved into the following chain:Processed zona pellucida sperm-binding protein 3
Protein Family	Zona pellucida sperm-binding protein
UniProt Gene Name	ZP3
UniProt Synonym Gene Names	ZP3A; ZP3B; ZPC; Zp-3
UniProt Entry Name	ZP3_HUMAN
NCBI Protein Information	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)
NCBI Summary for ZP3	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]
UniProt Comments for ZP3	ZP3: The mammalian zona pellucida, which mediates species- specific sperm binding, induction of the acrosome reaction and prevents post-fertilization polyspermy, is composed of three to four glycoproteins, ZP1, ZP2, ZP3, and ZP4. ZP3 is essential for sperm binding and zona matrix formation. Belongs to the ZP domain family. ZPC subfamily. 3 isoforms of the human protein are produced by alternative splicing. Protein type: Extracellular matrix; Membrane protein, integral Chromosomal Location of Human Ortholog: 7q11.23 Cellular Component: Golgi apparatus; extracellular space; endoplasmic reticulum; acrosome; extracellular region; integral to membrane; secretory granule; extracellular matrix; multivesicular body; proteinaceous extracellular matrix; perinuclear region of cytoplasm; cytoplasm; plasma membrane Molecular Function: acrosin binding; protein binding; store-operated calcium channel activity; signal transducer activity; manganese ion transmembrane transporter activity; carbohydrate binding Biological Process: positive regulation of type IV hypersensitivity; phosphoinositide-mediated signaling; binding of sperm to zona pellucida; positive regulation of transcription, DNA-dependent; positive regulation of leukocyte migration; manganese ion transport; blastocyst formation; positive regulation of phosphatidylinositol biosynthetic process; multicellular organism reproduction; positive regulation of interleukin-4 production; intracellular protein transport; positive regulation of protein kinase B signaling cascade; humoral immune response mediated by circulating immunoglobulin; positive regulation of interferon-gamma production; positive regulation of humoral immune response; positive regulation of protein kinase activity; single fertilization; positive regulation of T cell proliferation; negative regulation of transcription, DNA-dependent; oocyte development; positive regulation of inflammatory response
Research Articles on ZP3	**1.** observed sequence variations in exons of ZP3 gene in women with infertility of unknown origin who exhibit abnormal zona pellucida; sperm-ovum interactions appear relatively normal in these patients [CASE REPORTS]
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.

Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/mouse-elisa-kits/zona-pellucida-sperm-binding-protein-3-zp3/7204374