



# ZP4 Monoclonal Antibody

Catalog No	BYmab-04284
Isotype	IgG
Reactivity	Human;Rat;Mouse;
Applications	WB
Gene Name	ZP4
Protein Name	Zona pellucida sperm-binding protein 4
Immunogen	The antiserum was produced against synthesized peptide derived from human ZP4. AA range:231-280
Specificity	ZP4 Monoclonal Antibody detects endogenous levels of ZP4 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Monoclonal, Mouse,IgG
Purification	The antibody was affinity-purified from mouse antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB 1:500-2000
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	ZP4; ZPB; Zona pellucida sperm-binding protein 4; Zona pellucida glycoprotein 4; Zp-4; Zona pellucida protein B
Observed Band	65kD
Cell Pathway	[Processed zona pellucida sperm-binding protein 4]: Zona pellucida .; Cell membrane ; Single-pass type I membrane protein .
Tissue Specificity	Expressed in oocytes.
Function	domain:The ZP domain is involved in the polymerization of the ZP proteins to form the zona pellucida.,function: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. ZP4 may act as a sperm receptor.,PTM:Proteolytically cleaved before the transmembrane segment to yield the secreted ectodomain incorporated in the zona pellucida.,similarity:Belongs to the ZP domain family. ZPB subfamily.,similarity:Contains 1 P-type (trefoil) domain.,similarity:Contains 1 ZP domain.,tissue specificity:Oocytes.,

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## 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 nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a consensus furin cleavage site, and a C-terminal 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. Previously, this gene has been referred to as ZP1 or ZPB and thought to have similar functions as mouse Zp1. However, a human gene with higher similarity and chromosomal synteny to mouse Zp1 has been assigned the symbol ZP1 and this gene has been

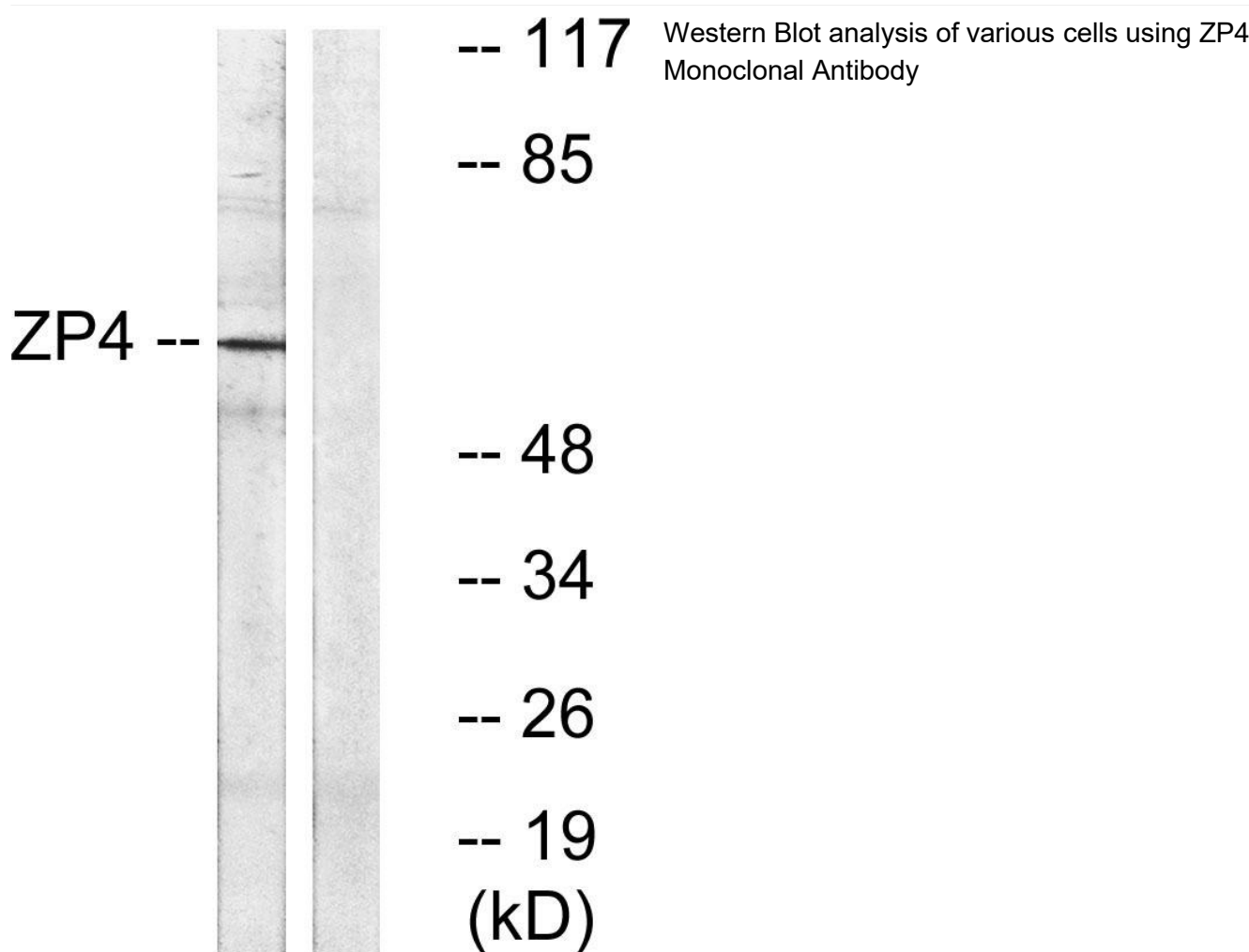
## matters needing attention

Avoid repeated freezing and thawing!

## Usage suggestions

This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

## Products Images



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