



ZP4 Polyclonal Antibody

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| Catalog No | BYab-04284 |
| Isotype | IgG |
| Reactivity | Human;Rat;Mouse; |
| Applications | WB;ELISA |
| 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 Polyclonal Antibody detects endogenous levels of ZP4 protein. |
| Formulation | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| Source | Polyclonal, Rabbit,IgG |
| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Dilution | Western Blot: 1/500 - 1/2000. ELISA: 1/10000. Not yet tested in other applications. |
| 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

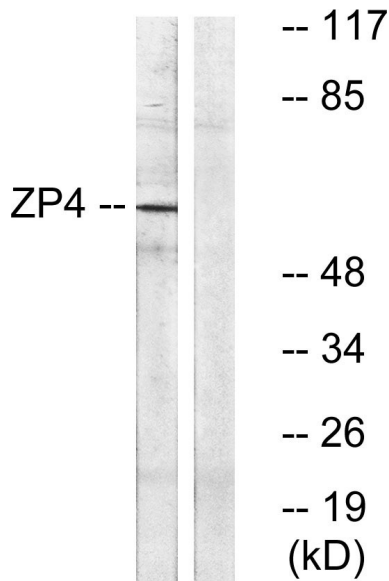
Avoid repeated freezing and thawing!

Usage suggestions

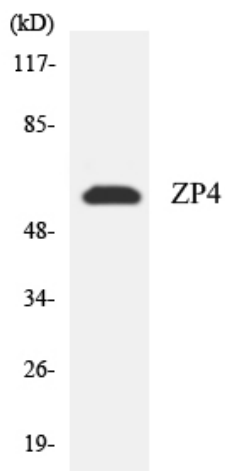
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



Products Images



Western blot analysis of lysates from Jurkat cells, using ZP4 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from HepG2 cells using ZP4 antibody.