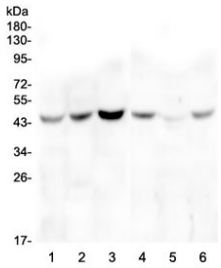
ZP3 Antibody / Zona pellucida glycoprotein 3 (RQ4898)

Catalog No.	Formulation	Size
RQ4898	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity purified
Buffer	Lyophilized from 1X PBS with 2% Trehalose and 0.025% sodium azide
UniProt	P21754
Applications	Western Blot : 0.5-1ug/ml
Limitations	This ZP3 antibody is available for research use only.



Western blot testing of human 1) HeLa, 2) placenta, 3) A549, 4) T-47D, 5) PC-3 and 6) U-2 OS cell lysate with ZP3 antibody at 0.5ug/ml. Predicted molecular weight ~47 kDa.

Description

Zona pellucida sperm-binding protein 3, also known as zona pellucida glycoprotein 3 (Zp-3) or the sperm receptor, is a ZP module-containing protein that in humans is encoded by the ZP3 gene. It is mapped to 7q11.23. he 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.

Application Notes

Optimal dilution of the ZP3 antibody should be determined by the researcher.

Immunogen

Amino acids LRLMEENWNAEKRSPTFHLGDAAHLQAEIHT from the human protein were used as the immunogen for the ZP3 antibody.

Storage

After reconstitution, the ZP3 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.