

Anti-ZP2 Antibody Picoband® Biotin Conjugated

Catalog Number: PB9912-Biotin

About ZP2

Zona pellucida sperm-binding protein 2 is a protein that in humans is encoded by the ZP2 gene. The sperm-binding domain on the ZP2 protein is necessary in both humans and mice for oocyte-sperm recognition and penetration of the zona pellucida. It is also responsible for the primary block to polyspermy in mammals. The oocyte has cortical granules peripherally located under the cortex that contain a proteolytic protein called ovastacin. After the sperm binds to ZP2, the cortical granules are exocytosed releasing ovastacin into the perivitelline space. Ovastacin cleaves ZP2 at the N terminus, preventing more sperm from binding and penetrating the oocyte, thus hardening the zona pellucida. Ovastacin is only found in oocytes, and is part of the astacin family of metalloendoproteases. Female mice engineered without ovastacin showed that ZP2 was not cleaved after fertilization.

Overview

Product Name	Anti-ZP2 Antibody Picoband® Biotin Conjugated
Reactive Species	Human
Application	WB, IHC, ELISA
Clonality	Polyclonal
Formulation	Each vial contains 50% glycerol, 0.9% NaCl, 0.2% Na ₂ HPO ₄ , 0.02% NaN ₃ .
Storage Instructions	At -20°C for one year from date of receipt. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	Q05996

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human ZP2, different from the related mouse sequence by six amino acids, and from the related rat sequence by four amino acids.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Liquid
Concentration	0.5 mg/mL
Purification	Immunogen affinity purified.
Conjugate	Biotin

Suggested Dilutions

Western blot, Optimal dilutions should be determined by end users.
Immunohistochemistry (Paraffin-embedded Section), Optimal dilutions should be determined by end users.
ELISA, Optimal dilutions should be determined by end users.

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