

Datasheet for ABIN3044563  
**anti-ZP2 antibody (N-Term)**

## 3 Images

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## Overview

Quantity:	100 µg
Target:	ZP2
Binding Specificity:	AA 511-544, N-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This ZP2 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (Paraffin-embedded Sections) (IHC (p)), Immunohistochemistry (Frozen Sections) (IHC (fro))

## Product Details

Purpose:	Rabbit IgG polyclonal antibody for Zona pellucida sperm-binding protein 2(ZP2) detection. Tested with WB, IHC-P, IHC-F in Human.
Immunogen:	A synthetic peptide corresponding to a sequence at the N-terminus of human ZP2 (511-544aa ENEYPLVRFLRQPIYMEVRV LNRDDPNIKLVLDD), different from the related mouse sequence by six amino acids, and from the related rat sequence by four amino acids.
Sequence:	ENEYPLVRFL RQPIYMEVRV LNRDDPNIKL VLDD
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Zona pellucida sperm-binding protein 2(ZP2) detection. Tested with WB, IHC-P, IHC-F in Human.

## Product Details

Gene Name: zona pellucida glycoprotein 2 (sperm receptor)

Protein Name: Zona pellucida sperm-binding protein 2

Purification: Immunogen affinity purified.

## Target Details

Target: ZP2

Alternative Name: ZP2 ([ZP2 Products](#))

Background: 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.

Synonyms: OTTHUMP00000115849 antibody|Processed zona pellucida sperm-binding protein 2 antibody|Zona pellucida glycoprotein 2 antibody|zona pellucida glycoprotein ZP2 antibody|Zona pellucida protein A antibody|Zp-2 antibody|ZP2 antibody|ZP2\_HUMAN antibody|ZPA antibody

Gene ID: 7783

UniProt: [Q05996](#)

## Application Details

Application Notes: WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human  
IHC-P: Concentration: 0.5-1 µg/mL, Tested Species: Human, Epitope Retrieval by Heat: Boiling the paraffin sections in 10 mM citrate buffer, pH 6.0, for 20 mins is required for the staining of formalin/paraffin sections.  
IHC-F: Concentration: 0.5-1 µg/mL, Tested Species: Human  
Notes: Tested Species: Species with positive results. Other applications have not been tested.  
Optimal dilutions should be determined by end users.

## Application Details

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB, supported by ABIN921231 in IHC(P) and IHC(F).

Restrictions: For Research Use only

## Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05 mg Sodium azide.

Preservative: Sodium azide

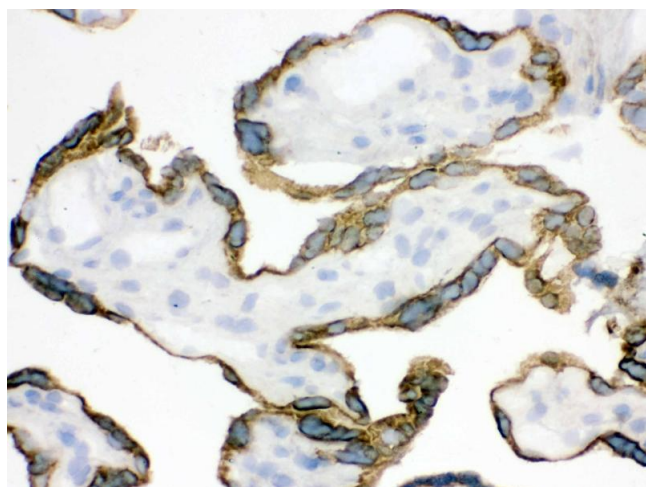
Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

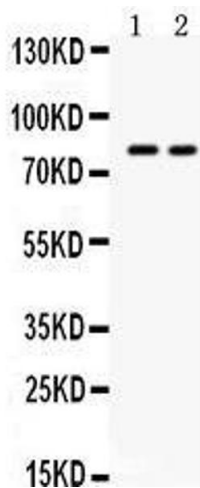
Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.  
It can also be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

## Images



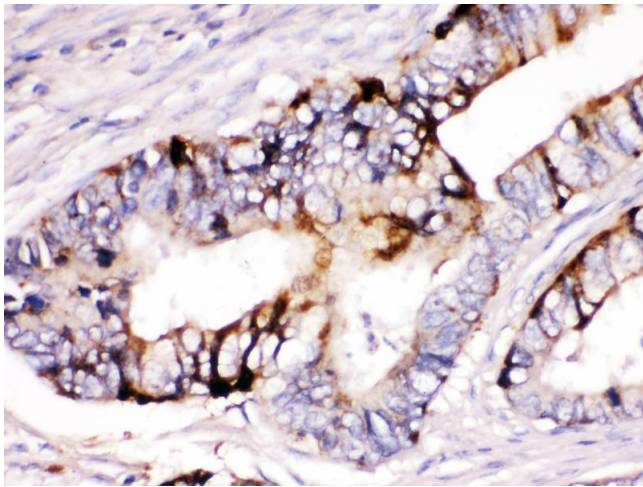
### Immunohistochemistry

**Image 1.** IHC analysis of ZP2 using anti-ZP2 antibody . ZP2 was detected in frozen section of human placenta tissue . Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-ZP2 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



### Western Blotting

**Image 2.** Western blot analysis of ZP2 expression in HELA whole cell lysates (lane 1) and HEPG2 whole cell lysates (lane 2). ZP2 at 82KD was detected using rabbit anti- ZP2 Antigen Affinity purified polyclonal antibody at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method



### Immunohistochemistry (Paraffin-embedded Sections)

**Image 3.** ZP2 was detected in paraffin-embedded sections of human intestinal cancer tissues using rabbit anti- ZP2 Antigen Affinity purified polyclonal antibody at 1 µg/mL. The immunohistochemical section was developed using SABC method