ZP2 Antibody (R32192)

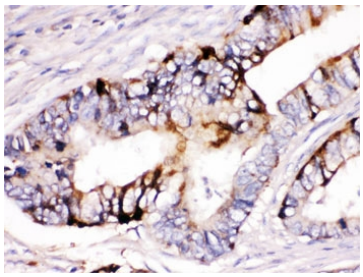
Catalog No.	Formulation	Size
R32192	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

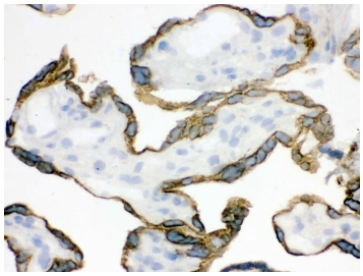
Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA, 0.025% sodium azide
UniProt	Q05996
Localization	Cytoplasmic, membrane, secreted
Applications	Western blot: 0.1-0.5ug/ml IHC (FFPE): 0.5-1ug/ml IHC (Frozen): 0.5-1ug/ml
Limitations	This ZP2 antibody is available for research use only.



Western blot testing of human 1) HeLa and 2) HepG2 cell lysate with ZP2 antibody. Expected/observed molecular weight ~82 kDa.



IHC testing of FFPE human intestine cancer tissue with ZP2 antibody. HIER: Boil the paraffin sections in pH 6, 10mM citrate buffer for 20 minutes and allow to cool prior to staining.



IHC testing of frozen human placental tissue with ZP2 antibody.

Description

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.

Application Notes

Optimal dilution of the ZP2 antibody should be determined by the researcher.

Immunogen

Amino acids ENEYPLVRFLRQPIYMEVRVLNRDDPNIKLVLDD of human ZP2 were used as the immunogen for the ZP2 antibody.

Storage

After reconstitution, the ZP2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.