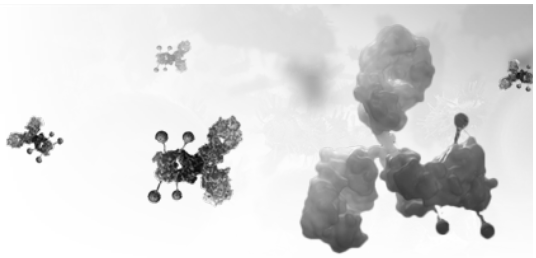

Rat Anti-Zp2 monoclonal antibody, clone JF-4 (CABT-RM127)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Specificity	Detects Zona pellucida sperm-binding protein 2 in murine species.
Target	Zp2
Immunogen	Purified mouse zonae pellucidae.
Isotype	IgG2a
Source/Host	Rat
Species Reactivity	Mouse
Clone	JF-4
Purification	Protein G purified
Conjugate	unconjugated
Applications	ELISA, IP, IF, WB
Molecular Weight	120 kDa observed. Uncharacterized bands may be observed in some lysate(s).
Format	Liquid
Size	25 µg
Buffer	0.1 M Tris-Glycine (pH 7.4), 150 mM NaCl
Preservative	0.05% sodium azide
Storage	Stable for 1 year at 2-8°C from date of receipt.

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BACKGROUND

Introduction	Zona pellucida sperm-binding protein 2 is encoded by the Zp2 gene in murine species. The zona pellucida is an extracellular matrix that surrounds the oocyte and early embryo. It is composed of three glycoproteins with various functions during fertilization and preimplantation development. The mammalian zona pellucida mediates species-specific sperm binding, induction of the acrosome reaction, and prevents post-fertilization polyspermy. ZP2 is expressed during the 2-week growth phase of oogenesis, prior to ovulation and may act as a secondary sperm receptor and is proteolytically cleaved in the N-terminal part by the metalloendopeptidase ASTL and is exocytosed from cortical granules after fertilization, yielding an N-terminal peptide of about 30 kDa which remains covalently attached to the C-terminal peptide via disulfide bond(s). This cleavage plays an important role in the post-fertilization block to polyspermy. Female mice lacking Zp2 gene do not form a stable zona matrix and are sterile.
Keywords	ZP2;zona pellucida glycoprotein 2 (sperm receptor);zona pellucida sperm-binding protein 2;zona pellucida protein A;zona pellucida glycoprotein ZP2;ZPA;Zp-2

GENE INFORMATION

Entrez Gene ID	22787
UniProt ID	P20239

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