Rat Zona pellucida sperm-binding protein 2 (ZP2) ELISA Kit

Catalog No: #EK11690

Package Size: #EK11690-1 48T #EK11690-2 96T

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Description

Product Name	Rat Zona pellucida sperm-binding protein 2 (ZP2) ELISA Kit
Brief Description	ELISA Kit
Applications	ELISA
Species Reactivity	Rat (Rattus norvegicus)
Other Names	ZPA; zona pellucida glycoprotein 2|zona pellucida protein A|zona pellucida sperm-binding protein 2
Accession No.	P48829
Uniprot	P48829
Storage	The stability of ELISA kit is determined by the loss rate of activity. The loss rate of this kit is less than 5% within the expiration date under appropriate storage condition. The loss rate was determined by accelerated thermal degradation test. Keep the kit at 37C for 4 and 7 days, and compare O.D.values of the kit kept at 37C with that of at recommended temperature. (referring from China Biological Products Standard, which was calculated by the Arrhenius equation. For ELISA kit, 4 days storage at 37C can be considered as 6 months at 2 - 8C, which means 7 days at 37C equaling 12 months at 2 - 8C).

Application Details

Detect Range:0.312-20 ng/mL

Sensitivity:0.125 ng/mL

Sample Type:Serum, Plasma, Other biological fluids

Sample Volume: 1-200 µL

Assay Time:1-4.5h

Detection wavelength:450 nm

Product Description

Detection Method:SandwichTest principle:This assay employs a two-site sandwich ELISA to quantitate ZP2 in samples. An antibody specific for ZP2 has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and anyZP2 present is bound by the immobilized antibody. After removing any unbound substances, a biotin-conjugated antibody specific for ZP2 is added to the wells. After washing, Streptavidin conjugated Horseradish Peroxidase (HRP) is added to the wells. Following a wash to remove any unbound avidin-enzyme reagent, a substrate solution is added to the wells and color develops in proportion to the amount of ZP2 bound in the initial step. The color development is stopped and the intensity of the color is measured.Product Overview:The 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. Zona pellucida sperm-binding protein 2 is a structural component of the zona pellucida and functions in secondary binding and penetration of acrosome-reacted spermatozoa. The nascent protein contains a N-terminal signal peptide sequence, a conserved ZP domain, a consensus furin cleavage site, and a C-terminal 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.

Note: This product is for in vitro research use only