10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Goat anti-NLRP5 (C-terminus) Antibody

Peptide-affinity purified goat antibody
Catalog # AF4404a

Product Information

Application	WB, Pep-ELISA
Primary Accession	P59047
Other Accession	NP_703148.4
Reactivity	Human
Host	Goat
Clonality	Polyclonal
Clone Names	NLRP5
Calculated MW	134342

Additional Information

Other Names	NLRP5; NLR family, pyrin domain containing 5; MATER; NALP5; PAN11; PYPAF8; CLR19.8
Dilution	WB~~1:1000 Pep-ELISA~~N/A
Format	Supplied at 0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin. Aliquot and store at -20°C. Minimize freezing and thawing.
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Goat anti-NLRP5 (C-terminus) Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NLRP5 {ECO:0000303|PubMed:38868925, ECO:0000312|HGNC:HGNC:21269}
Function	Component of the subcortical maternal complex (SCMC), a multiprotein complex that plays a key role in early embryonic development (PubMed:38868925). The SCMC complex is a structural constituent of cytoplasmic lattices, which consist in fibrous structures found in the cytoplasm of oocytes and preimplantation embryos (PubMed:41118754). They are required to store maternal proteins critical for embryonic development, such as ribosomal proteins, cytoskeletal tubulins and proteins controlling epigenetic reprogramming of the preimplantation embryo, in a poised but restrained state, regulating their availability for early embryonic development (PubMed:24374158, PubMed:38868925). Cytoplasmic lattices also tightly

	control ubiquitination during the oocyte-to-embryo transition by trapping E3 ubiquitin-protein ligase UHRF1 in a compact autoinhibited conformation and maintaining SCF ubiquitin ligase complexes inactive (PubMed:38868925). Required for the localization of cortical granules to the cortex of oocytes, via association with the cortical actin scaffold (By similarity). Required for cortical actin clearance prior to oocyte exocytosis and prevention of polyspermy (By similarity). Involved in regulating post-fertilization Ca(2+) release and endoplasmic reticulum storage (ER) storage via regulation of cellular localization (By similarity). May be involved in the localization of mitochondria to the cytoplasm and perinuclear region in oocytes and early stage embryos, independent of its role in CPL formation (By similarity).
Cellular Location	Cytoplasm. Cytoplasmic vesicle, secretory vesicle, Cortical granule. Mitochondrion. Nucleus, nucleolus. Golgi apparatus. Note=Core component of cytoplasmic lattices in oocytes (PubMed:37922900). In the subcortical cytoplasm of early embryos from the 1-cell to the blastocyst stages (By similarity). From the 2-cell stage, still detected in the subcortex, but excluded from cell-cell contact regions (By similarity). Expression largely disappears in blastocysts (By similarity). Located in mitochondria and nucleoli in primary follicle oocytes (By similarity) {ECO:0000250|UniProtKB:Q9R1M5, ECO:0000269|PubMed:37922900}
Tissue Location	Expressed in cumulus cells (at protein level) (PubMed:19542546). Highly abundant in oocytes and early embryos, however poorly expressed in somatic tissues such as the liver and spinal cord (PubMed:11925379, PubMed:30877238)

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.