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

OOEP Rabbit pAb

OOEP Rabbit pAb
Catalog # AP57865

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	A6NGQ2
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	17170
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human OOEP
Epitope Specificity	1-80/149
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	Preservative: 0.02% Proclin300, Constituents: 1% BSA, 0.01M PBS, pH7.4.
SUBCELLULAR LOCATION	Cytoplasm. In the subcortical cytoplasm of early embryos from the 1-cell to the blastocyst stages. From the 2-cell stage, still detected in the subcortex, but excluded from cell-cell contact regions.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	As a member of the subcortical maternal complex (SCMC), plays an essential role for zygotes to progress beyond the first embryonic cell divisions.

Additional Information

Gene ID	441161
Other Names	Oocyte-expressed protein homolog, KH homology domain-containing protein 2, Oocyte- and embryo-specific protein 19 {ECO:0000303|Ref.1}, hOEP19 {ECO:0000303|Ref.1}, OOEP {ECO:0000303|PubMed:25542835, ECO:0000312|HGNC:HGNC:21382}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	OOEP {ECO:0000303|PubMed:25542835, ECO:0000312|HGNC:HGNC:21382}

Function	Component of the subcortical maternal complex (SCMC), a multiprotein complex that plays a key role in early embryonic development (By similarity). 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 (By similarity). 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 (By similarity). As part of the OOEP-KHDC3 scaffold, recruits BLM and TRIM25 to DNA replication forks, thereby promoting the ubiquitination of BLM by TRIM25, enhancing BLM retainment at replication forks and therefore promoting stalled replication fork restart (By similarity). Positively regulates the homologous recombination-mediated DNA double-strand break (DSB) repair pathway by regulating ATM activation and RAD51 recruitment to DSBs in oocytes (By similarity). Thereby contributes to oocyte survival and the resumption and completion of meiosis (By similarity).
Cellular Location	Cytoplasm. Nucleus. Note=Core component of cytoplasmic lattices in oocytes. In the subcortical cytoplasm of early embryos from the 1-cell to the blastocyst stages. From the 2-cell stage, still detected in the subcortex, but excluded from cell-cell contact regions Expression largely disappears in blastocysts {ECO:0000250|UniProtKB:Q9CWE6}

Background

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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