

(Mouse) Dppa3 Blocking Peptide (C-term)
Synthetic peptide
Catalog # BP20950c

Specification

(Mouse) Dppa3 Blocking Peptide (C-term) - Product Information

Primary Accession [Q8OZY3](#)

(Mouse) Dppa3 Blocking Peptide (C-term) - Additional Information

Gene ID 73708

Other Names

Developmental pluripotency-associated protein 3, Compaction-associated protein 1, Primordial germ cell protein 7, Dppa3, Cap1p, Crg1, Pgc7

Target/Specificity

The synthetic peptide sequence is selected from aa 134-150 of HUMAN Dppa3

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

(Mouse) Dppa3 Blocking Peptide (C-term) - Protein Information

Name Dppa3

Synonyms Cap1p, Crg1, Pgc7 {ECO:0000303|PubMed:11

Function

Primordial germ cell (PGCs)-specific protein involved in epigenetic chromatin reprogramming in the zygote following fertilization. In zygotes, DNA demethylation occurs selectively in the paternal pronucleus before the first cell division, while the adjacent maternal pronucleus and certain paternally-imprinted loci are protected from this process. Participates in protection of DNA methylation in the maternal pronucleus by preventing conversion of 5mC to 5hmC: specifically recognizes and binds histone H3 dimethylated at 'Lys-9' (H3K9me2) on maternal genome, and protects maternal genome from TET3- mediated conversion to 5hmC and subsequent DNA demethylation. Does not bind paternal chromatin, which is mainly packed into protamine and does not contain much H3K9me2 mark. Also protects imprinted loci that are marked with H3K9me2 in mature sperm from DNA demethylation in early embryogenesis. May be important for the totipotent/pluripotent states continuing through preimplantation development. Also involved in chromatin condensation in oocytogenesis.

Cellular Location

Nucleus. Cytoplasm Note=Localized in the cytoplasm at the primary oocyte stage and in oocytes within mono-laminar follicles. Expressed in the nucleus and cytoplasm of oocytes in bi-laminar and Graafian follicles and during the 2-cell and morula stages. In 3.5 dpc blastocysts localization is mainly nuclear. Mainly localizes in the female pronucleus, localization to the male pronucleus is much weaker.

Tissue Location

Expressed in the immature oocytes and in newborn ovaries. Subsequently detected in maturing oocytes and in preimplantation embryos. Expressed in pluripotent embryonic but not in differentiated somatic cells. Expressed in blastocysts, epiblasts, primordial germ cells, embryonic gonads and primitive spermatogonia. No expression is detected in adult testes.

(Mouse) Dppa3 Blocking Peptide (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

(Mouse) Dppa3 Blocking Peptide (C-term) - Images**(Mouse) Dppa3 Blocking Peptide (C-term) - Background**

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(Mouse) Dppa3 Blocking Peptide (C-term) - References

Saitou M.,et al.Nature 418:293-300(2002).
Sato M.,et al.Mech. Dev. 113:91-94(2002).
Bortvin A.,et al.Development 130:1673-1680(2003).
Li W.,et al.Submitted (JUL-2002) to the EMBL/GenBank/DDBJ databases.
Carninci P.,et al.Science 309:1559-1563(2005).