

MAEL/CT128 Rabbit pAb

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Catalog # AP57179

Product Information

Primary Accession	Q96JY0
Reactivity	Human
Predicted	Rat, Pig, Dog, Mouse, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	49219
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human MAEL/CT128
Epitope Specificity	201-300/434
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm. Nucleus. Component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon during meiosis. Specifically localizes to piP-bodies, a subset of the nuage which contains secondary piRNAs.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Mael is a 434 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one HMG box DNA-binding domain. Expressed specifically in testicular tissue, Mael interacts with Ini1, mSin3B and VASA and plays an essential role in spermatogenesis, specifically by repressing and, ultimately, preventing the mobilization of transposable elements (a process that is crucial for germline integrity). Multiple isoforms of Mael exist due to alternative splicing events. The gene encoding Mael maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

Additional Information

Gene ID	84944
Other Names	Protein maelstrom homolog, MAEL
Dilution	ICC/IF=1:50-200

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.
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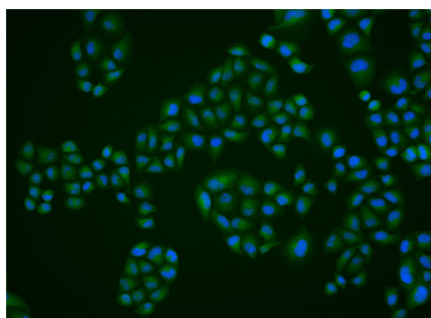
Protein Information

Name	MAEL
Function	Plays a central role during spermatogenesis by repressing transposable elements and preventing their mobilization, which is essential for the germline integrity. Acts via the piRNA metabolic process, which mediates the repression of transposable elements during meiosis by forming complexes composed of piRNAs and Piwi proteins and governs the methylation and subsequent repression of transposons. Its association with piP-bodies suggests a participation in the secondary piRNAs metabolic process. Required for the localization of germ-cell factors to the meiotic nuage (By similarity).
Cellular Location	Cytoplasm {ECO:0000250 UniProtKB:Q8BVN9}. Nucleus {ECO:0000250 UniProtKB:Q8BVN9}. Note=Component of the meiotic nuage, also named P granule, a germ-cell-specific organelle required to repress transposon activity during meiosis. Specifically localizes to piP-bodies, a subset of the nuage which contains secondary piRNAs (By similarity). {ECO:0000250 UniProtKB:Q8BVN9}
Tissue Location	Testis-specific. Expressed in various cancer cell lines, probably due to demethylation of its promoter {ECO:0000269 PubMed:19693694, ECO:0000269 Ref.1}

Background

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Images



HeLa cell; 4% Paraformaldehyde-fixed; Triton X-100 at room temperature for 20 min; Blocking buffer (normal goat serum, C-0005) at 37°C for 20 min; Antibody incubation with (MAEL/CT128) polyclonal Antibody, Unconjugated (AP57179) 1:50, 90 minutes at 37°C; followed by a conjugated Goat Anti-Rabbit IgG antibody at 37°C for 90 minutes, DAPI (blue, C02-04002) was used to stain the cell nuclei.

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