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NANOS2 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP2730b

Product Information

Application	WB, IHC-P, E
Primary Accession	P60321
Other Accession	P60322
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB13985-13986
Calculated MW	15132
Antigen Region	108-137

Additional Information

Gene ID	339345
Other Names	Nanos homolog 2, NOS-2, NANOS2, NOS2
Target/Specificity	This NANOS2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 108-137 amino acids from the C-terminal region of human NANOS2.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	NANOS2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	NANOS2
Synonyms	NOS2
Function	Plays a key role in the sexual differentiation of germ cells by promoting the

	male fate but suppressing the female fate. Represses the female fate pathways by suppressing meiosis, which in turn results in the promotion of the male fate. Maintains the suppression of meiosis by preventing STRA8 expression, which is required for premeiotic DNA replication, after CYP26B1 is decreased. Regulates the localization of the CCR4-NOT deadenylation complex to P-bodies and plays a role in recruiting the complex to trigger the degradation of mRNAs involved in meiosis. Required for the maintenance of the spermatogonial stem cell population. Not essential for the assembly of P-bodies but is required for the maintenance of their normal state (By similarity).
Cellular Location	Cytoplasm. Cytoplasm, P-body. Cytoplasm, perinuclear region. Note=Localizes at P-bodies during gonocyte development (By similarity). More abundant in perinuclear region of the cytoplasm of the germ cells of the adult testis
Tissue Location	Testis and ovary. Expression found in several spermatogenic stages: in cells on the periphery of the tubules which could correspond to spermatogonia, in spermatocytes and in round spermatids (at protein level).

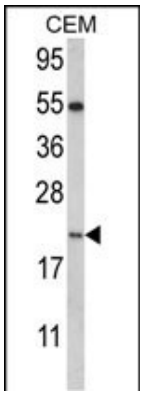
Background

NANOS2 is required to support proliferation and self-renewal of proximal germ cells in males only. It probably regulates translation of specific mRNAs by associating with the 3'-UTR of mRNA targets. It is essential for spermatogonia formation.

References

Chang,H.R., Arch. Dermatol. Res. 295 (7), 293-296 (2003)
Tsuda,M., Science 301 (5637), 1239-1241 (2003)
Jaruzelska,J., Dev. Genes Evol. 213 (3), 120-126 (2003)

Images



Western blot analysis of NANOS2 Antibody (C-term) (Cat. #AP2730b) in CEM cell line lysates (35ug/lane). NANOS2 (arrow) was detected using the purified Pab.

Formalin-fixed and paraffin-embedded human testis tissue reacted with NANOS2 antibody (C-term)(Cat.#AP2730b), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.