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POLR2D Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17215c

Product Information

Application	WB, E
Primary Accession	O15514
Other Accession	Q9D7M8, NP_004796.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB36831
Calculated MW	16311
Antigen Region	51-79

Additional Information

Gene ID	5433
Other Names	DNA-directed RNA polymerase II subunit RPB4, RNA polymerase II subunit B4, DNA-directed RNA polymerase II subunit D, RNA polymerase II 16 kDa subunit, RPB16, POLR2D
Target/Specificity	This POLR2D antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 51-79 amino acids from the Central region of human POLR2D.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
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	POLR2D Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	POLR2D
Function	Core component of RNA polymerase II (Pol II), a DNA-dependent RNA

polymerase which synthesizes mRNA precursors and many functional non-coding RNAs using the four ribonucleoside triphosphates as substrates. Pol II is the central component of the basal RNA polymerase II transcription machinery. It is composed of mobile elements that move relative to each other. POLR2D/RPB4 is part of a subcomplex with POLR2G/RPB7 that binds to a pocket formed by POLR2A/RPB1, POLR2B/RPB2 and POLR2F/RPABC2 at the base of the clamp element. The POLR2D/RPB4- POLR2G/RPB7 subcomplex seems to lock the clamp via POLR2G/RPB7 in the closed conformation thus preventing double-stranded DNA to enter the active site cleft. The POLR2D/RPB4-POLR2G/RPB7 subcomplex binds single- stranded DNA and RNA.

Cellular Location Nucleus.

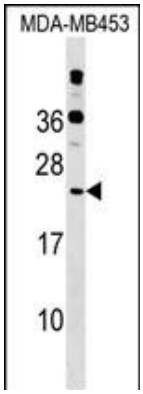
Background

This gene encodes the fourth largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. In yeast, this polymerase subunit is associated with the polymerase under suboptimal growth conditions and may have a stress protective role. A sequence for a ribosomal pseudogene is contained within the 3' untranslated region of the transcript from this gene.

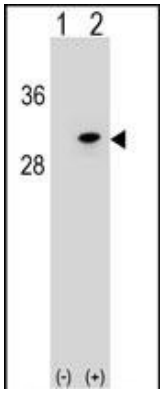
References

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Meka, H., et al. Nucleic Acids Res. 33(19):6435-6444(2005)
Zhou, M., et al. Proc. Natl. Acad. Sci. U.S.A. 100(22):12666-12671(2003)
Kaehlcke, K., et al. Mol. Cell 12(1):167-176(2003)
Shilatifard, A., et al. Annu. Rev. Biochem. 72, 693-715 (2003) :

Images



POLR2D Antibody (Center) (Cat. #AP17215c) western blot analysis in MDA-MB453 cell line lysates (35ug/lane).This demonstrates the POLR2D antibody detected the POLR2D protein (arrow).



Western blot analysis of POLR2D (arrow) using rabbit polyclonal POLR2D Antibody (Center) (Cat. #AP17215c). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the POLR2D gene.

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