

**POLR2D Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP17215c**

**Specification**

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**POLR2D Antibody (Center) - Product Information**

Application	WB,E
Primary Accession	<a href="#">O15514</a>
Other Accession	<a href="#">O9D7M8</a> , <a href="#">NP_004796.1</a> , <a href="#">O1JQ91</a>
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	16311
Antigen Region	51-79

**POLR2D Antibody (Center) - 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

**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.

**POLR2D Antibody (Center) - 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**

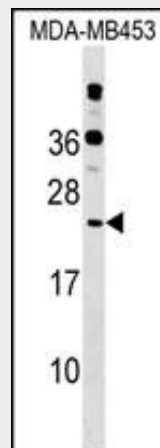
Nucleus.

#### **POLR2D Antibody (Center) - Protocols**

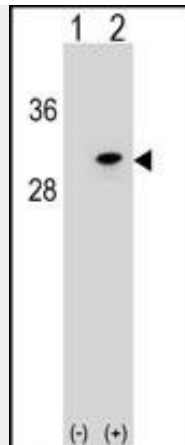
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

#### **POLR2D Antibody (Center) - 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.

#### **POLR2D Antibody (Center) - 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.

#### **POLR2D Antibody (Center) - References**

Michiels, S., et al. *Carcinogenesis* 30(5):763-768(2009)  
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) :