abcam

ab180151

Anti-POLR2E/rpb5 antibody [EPR11750]

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR11750
Purity	Tissue culture supernatant

Reactivity data

IHC-P

Tested

Species	Human
Dilution info	1/50 - 1/100
Notes	-

Predicted

Species	Mouse, Rat

Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/5000 - 1/10000
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/10
Notes	ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information POLR2E

Function	DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Common component of

RNA polymerases I, II and III which synthesize ribosomal RNA precursors, mRNA precursors and many functional non-coding RNAs, and small RNAs, such as 5S rRNA and tRNAs, respectively. Pol II is the central component of the basal RNA polymerase II transcription machinery. Pols are composed of mobile elements that move relative to each other. In Pol II, POLR2E/RPABC1 is part of the lower jaw surrounding the central large cleft and thought to grab the incoming DNA template.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	POLR2E also known as RPB5 is a subunit of RNA polymerase II which plays a central role in the transcription of DNA into RNA. It weighs approximately 25 kDa. POLR2E is expressed in ubiquitously in human tissues indicating its essential role

	in basic cellular functions. As a component of the core RNA polymerase II complex it interacts with other polymerase subunits to form the enzyme that synthesizes messenger RNA (mRNA) precursors and many functional non-coding RNAs.
Biological function summary	The function of POLR2E contributes to transcription initiation and elongation processes. It is part of the larger multiprotein complex of RNA polymerase II which consists of twelve different subunits. This complex is responsible for transcribing mRNA from DNA templates in eukaryotic cells. POLR2E enables the assembly of the transcriptional machinery significantly affecting the regulation of gene expression.
Pathways	POLR2E operates in the transcription and mRNA processing pathways. It plays an important role in the synthesis of RNA transcripts that undergo splicing polyadenylation and capping before they become mature mRNAs for protein synthesis. POLR2E interacts with other factors in the transcription complex such as TFIIF and TFIIE which modulate transcriptional efficiency and fidelity.
Associated diseases and disorders	POLR2E has been linked to transcription-related pathologies such as certain cancers and neurological disorders. Alterations in the expression or function of POLR2E can affect the proper transcription process leading to disrupted cellular functions. It also connects to proteins like BRCA1 in breast cancer where changes in gene expression play a role in tumor development and progression.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

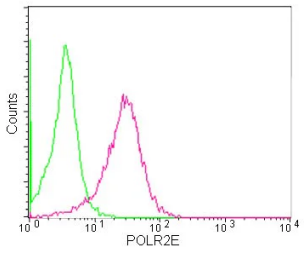
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

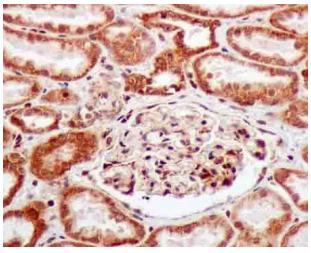
4 product images



Flow Cytometry (Intracellular) - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151)

POLR2E/rpb5 Flow Cytometry (Intracellular) staining using rabbit Anti-POLR2E/rpb5 antibody

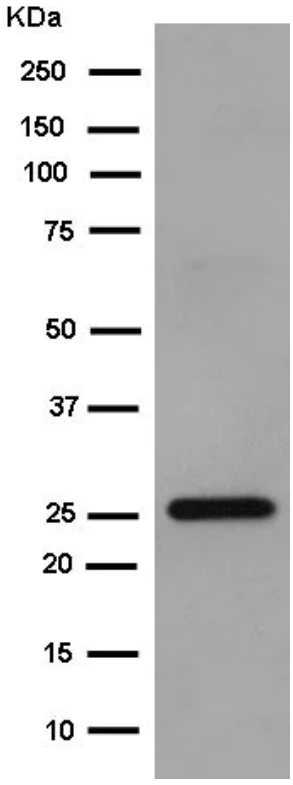
Intracellular flow cytometric analysis of 2% paraformaldehyde-fixed HeLa cells labeling POLR2E/rpb5 with ab180151 at 1/10 dilution followed by Goat anti rabbit IgG (FITC) at 1/75 dilution (red), compared to a Rabbit IgG control (green).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151)

POLR2E/rpb5 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-POLR2E/rpb5 antibody

Immunohistochemical analysis of paraffin-embedded Human kidney tissue labeling POLR2E/rpb5 with ab180151 at 1/100 dilution followed by prediluted Goat anti rabbit IgG (HRP). Counter stained with Hematoxylin.
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151)

POLR2E/rpb5 Western blot staining of HepG2 cell lysate using rabbit Anti-POLR2E/rpb5 antibody

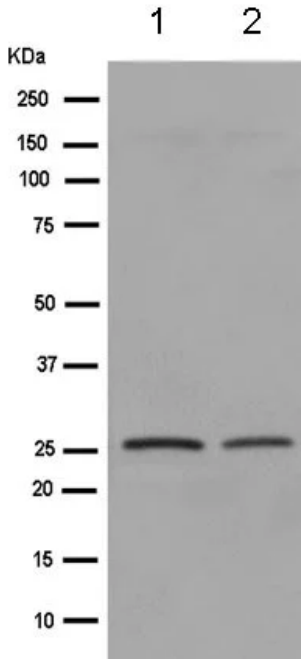
All lanes:
Western blot - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151) at 1/5000 dilution

All lanes:
HepG2 cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 25 kDa



Western blot - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151)

All lanes:
Western blot - Anti-POLR2E/rpb5 antibody [EPR11750] (ab180151) at 1/20000 dilution

Lane 1:
A431 cell lysate at 20 µg

Lane 2:
HeLa cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 25 kDa

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