

Anti-RNA polymerase II RPB1/POLR2A Antibody

Catalog Number: A01029

About POLR2A

DNA-directed RNA polymerase II subunit RPB1, also known as RPB1, is an enzyme that in humans is encoded by the POLR2A gene. This gene encodes the largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. The product of this gene contains a carboxy terminal domain composed of heptapeptide repeats that are essential for polymerase activity. These repeats contain serine and threonine residues that are phosphorylated in actively transcribing RNA polymerase. In addition, this subunit, in combination with several other polymerase subunits, forms the DNA binding domain of the polymerase, a groove in which the DNA template is transcribed into RNA.

Overview

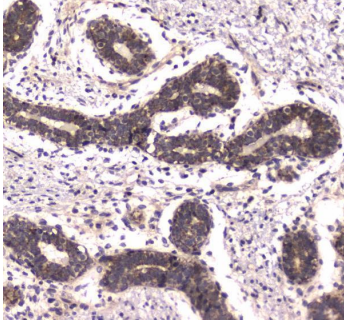
Product Name	Anti-RNA polymerase II RPB1/POLR2A Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-RNA polymerase II RPB1/POLR2A Antibody catalog # A01029. Tested in ELISA, IHC applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IHC
Clonality	Polyclonal
Formulation	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P24928

Technical Details

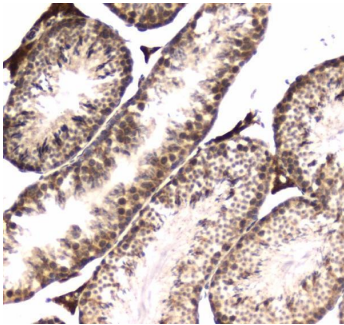
Immunogen	E. coli-derived human POLR2A recombinant protein (Position: A1148-H1384).
Recommended Detection Systems	Boster recommends HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

	ELISA, 0.1-0.5ug/ml
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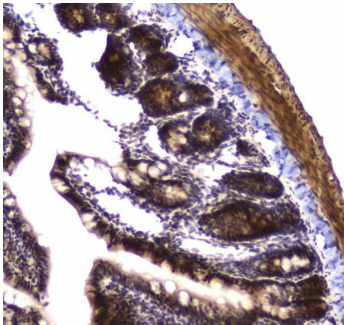
Anti-RNA polymerase II RPB1/POLR2A Antibody (A01029) Images



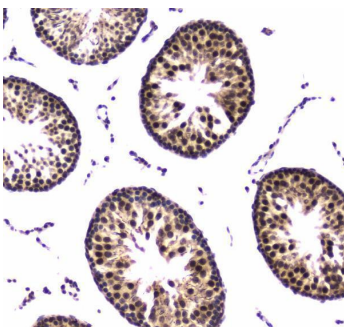
IHC analysis of POLR2A using anti-POLR2A antibody (A01029). POLR2A was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-POLR2A Antibody (A01029) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of POLR2A using anti-POLR2A antibody (A01029). POLR2A was detected in paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-POLR2A Antibody (A01029) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of POLR2A using anti-POLR2A antibody (A01029). POLR2A was detected in paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-POLR2A Antibody (A01029) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of POLR2A using anti-POLR2A antibody (A01029). POLR2A was detected in paraffin-embedded section of rat testis tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-POLR2A Antibody (A01029) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

1. PubMed ID: 32165292, Huang H,Liu J,Yao F,Li X,Wang Y,Shao Y,Wang X,Kong J,Zhang X,Jiang T,Hou L.The integrator complex subunit 11 is involved in the post-diapaused embryonic development and stress response of Artemia sinica.Gene.2020 May 30;741:144548.doi:10.1016/j.gene.2020.144548.Epub 2020 Mar 9.PMID:32165292.

2. PubMed ID: 28848320, Heparanase mediates vascular endothelial growth factor gene transcription in high-glucose human retinal microvascular endothelial cells.

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