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PRIM2 Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17431c

Product Information

Application	WB, E
Primary Accession	P49643
Other Accession	O89044, NP_000938.2
Reactivity	Human, Rat, Mouse
Predicted	Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37087
Calculated MW	58806
Antigen Region	317-345

Additional Information

Gene ID	5558
Other Names	DNA primase large subunit, 277-, DNA primase 58 kDa subunit, p58, PRIM2, PRIM2A
Target/Specificity	This PRIM2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 317-345 amino acids from the Central region of human PRIM2.
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	PRIM2 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PRIM2
Synonyms	PRIM2A

Function

Regulatory subunit of the DNA primase complex and component of the DNA polymerase alpha complex (also known as the alpha DNA polymerase-primase complex) which play an essential role in the initiation of DNA synthesis (PubMed:17893144, PubMed:25550159, PubMed:26975377, PubMed:9705292). During the S phase of the cell cycle, the DNA polymerase alpha complex (composed of a catalytic subunit POLA1, an accessory subunit POLA2 and two primase subunits, the catalytic subunit PRIM1 and the regulatory subunit PRIM2) is recruited to DNA at the replicative forks via direct interactions with MCM10 and WDHD1 (By similarity). The primase subunit of the polymerase alpha complex initiates DNA synthesis by oligomerising short RNA primers on both leading and lagging strands (PubMed:17893144). These primers are initially extended by the polymerase alpha catalytic subunit and subsequently transferred to polymerase delta and polymerase epsilon for processive synthesis on the lagging and leading strand, respectively (By similarity). In the primase complex, both subunits are necessary for the initial di-nucleotide formation, but the extension of the primer depends only on the catalytic subunit (PubMed:17893144, PubMed:25550159). Binds RNA:DNA duplex and coordinates the catalytic activities of PRIM1 and POLA2 during primase-to-polymerase switch.

Background

The replication of DNA in eukaryotic cells is carried out by a complex chromosomal replication apparatus, in which DNA polymerase alpha and primase are two key enzymatic components. Primase, which is a heterodimer of a small subunit and a large subunit, synthesizes small RNA primers for the Okazaki fragments made during discontinuous DNA replication. The protein encoded by this gene is the large, 58 kDa primase subunit. [provided by RefSeq].

References

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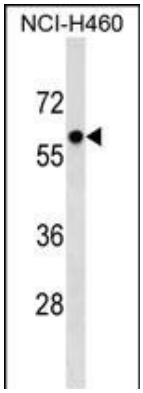
Weiner, B.E., et al. J. Biol. Chem. 282(46):33444-33451(2007)
Rush, J., et al. Nat. Biotechnol. 23(1):94-101(2005)
Mungall, A.J., et al. Nature 425(6960):805-811(2003)

Images



PRIM2 Antibody (Center) (Cat. #AP17431c) western blot analysis in NCI-H460 cell line lysates (35ug/lane).This demonstrates the PRIM2 antibody detected the PRIM2 protein (arrow).