abcam

Product datasheet

Recombinant Human DNA polymerase alpha/POLA protein ab114839

1 Image

Description

Product name	Recombinant Human DNA polymerase alpha/POLA protein
Expression system	Wheat germ
Accession	**P09884**
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Sequence	QFSRTGPLCPACMKATLQPEYSDKSLYTQLCFYRYIFDAE CALEKLTTDH EKDKLKKQFFTPKVLQDYRKLKNTAEQFLSRSGYSEVNLS KLFAGCAVKS
Predicted molecular weight	37 kDa including tags
Amino acids	1363 to 1462

Specifications

Our **Abpromise guarantee** covers the use of **ab114839** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	ELISA SDS-PAGE Western blot
Form	Liquid
Additional notes	This product was previously labelled as DNA polymerase alpha.

Preparation and Storage

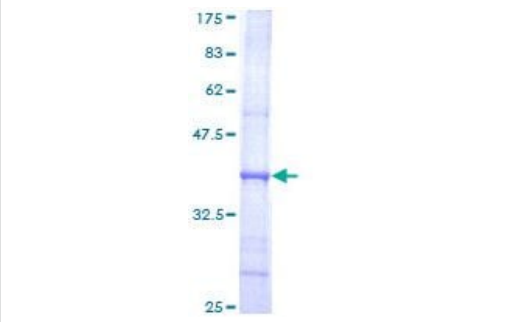
Stability and Storage	Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles. pH: 8.00

Constituents: 0.3% Glutathione, 0.79% Tris HCl

General Info

Function	Plays an essential role in the initiation of DNA replication. During the S phase of the cell cycle, the DNA polymerase alpha complex (composed of a catalytic subunit POLA1/p180, a regulatory subunit POLA2/p70 and two primase subunits PRIM1/p49 and PRIM2/p58) is recruited to DNA at the replicative forks via direct interactions with MCM10 and WDHD1. The primase subunit of the polymerase alpha complex initiates DNA synthesis by oligomerising short RNA primers on both leading and lagging strands. 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. The reason this transfer occurs is because the polymerase alpha has limited processivity and lacks intrinsic 3' exonuclease activity for proofreading error, and therefore is not well suited for replicating long complexes.
Sequence similarities	Belongs to the DNA polymerase type-B family.
Post-translational modifications	A 165 kDa form is probably produced by proteolytic cleavage at Lys-124.
Cellular localization	Nucleus.

Images



SDS-PAGE - Recombinant Human DNA polymerase alpha/POLA protein (ab114839)

ab114839 analysed by 12.5% SDS-PAGE and stained with Coomassie Blue.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
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