

DNA Polymerase  $\alpha$  Conjugated Antibody

Catalog No: #C33665



Package Size: #C33665-AF350 100ul #C33665-AF405 100ul #C33665-AF488 100ul  
 #C33665-AF555 100ul #C33665-AF594 100ul #C33665-AF647 100ul  
 #C33665-AF680 100ul #C33665-AF750 100ul #C33665-Biotin 100ul

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## Description

Product Name	DNA Polymerase $\alpha$ Conjugated Antibody
Host Species	Rabbit
Clonality	Polyclonal
Species Reactivity	Hu
Specificity	The antibody detects endogenous levels of total DNA Polymerase $\alpha$ protein.
Immunogen Description	Synthesized peptide derived from N-terminal of human DNA Polymerase $\alpha$ .
Conjugates	Biotin AF350 AF405 AF488 AF555 AF594 AF647 AF680 AF750
Other Names	DNA pol alpha;DNA polymerase alpha catalytic subunit;DPOA;DPOLA;EC 2.7.7.7
Accession No.	Swiss-Prot#:P09884NCBI Gene ID:5422
Uniprot	P09884
GeneID	5422;
Excitation Emission	AF350: 346nm/442nm AF405: 401nm/421nm AF488: 493nm/519nm AF555: 555nm/565nm AF594: 591nm/614nm AF647: 651nm/667nm AF680: 679nm/702nm AF750: 749nm/775nm
Calculated MW	165
Formulation	0.01M Sodium Phosphate, 0.25M NaCl, pH 7.6, 5mg/ml Bovine Serum Albumin, 0.02% Sodium Azide
Storage	Store at 4°C in dark for 6 months

## Application Details

Suggested Dilution:

AF350 conjugated: most applications: 1: 50 - 1: 250

AF405 conjugated: most applications: 1: 50 - 1: 250

AF488 conjugated: most applications: 1: 50 - 1: 250

AF555 conjugated: most applications: 1: 50 - 1: 250

AF594 conjugated: most applications: 1: 50 - 1: 250

AF647 conjugated: most applications: 1: 50 - 1: 250

AF680 conjugated: most applications: 1: 50 - 1: 250

AF750 conjugated: most applications: 1: 50 - 1: 250

Biotin conjugated: working with enzyme-conjugated streptavidin, most applications: 1: 50 - 1: 1,000

## Product Description

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The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

## Background

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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.

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Note: This product is for in vitro research use only