## bs-6166R

## [ Primary Antibody ]

## DNA polymerase alpha Rabbit pAb



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– DATASHEET –		400-901-9800
Host: Rabbit	<b>lsotype:</b> IgG	Applications: WB (1:500-2000)
Clonality: Polyclonal		<b>IHC-P</b> (1:100-500)
GenelD: 5422	SWISS: P09884	<b>IHC-F</b> (1:100-500)
0.22		IF (1:100-500) ELISA (1:5000-10000)
Target: DNA polymerase alpha		
Immunogen: KLH conjugated synthetic peptide derived from human DPOLA/DNA polymerase alpha: 1231-1350/1462.		<b>Reactivity:</b> (predicted: Human, Mouse, Rat, Rabbit, Dog, Horse)
Purification: affinity purified by I	Protein A	
Concentration: 1mg/ml		Predicted MW.: <sup>161 kDa</sup>
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.		
Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.		Subcellular Location: <sup>Cytoplasm</sup> , Nucleus
<b>Background:</b> 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.		