Recombinant Human PRIM1 Protein (M1-F420), Tag Free

Cat. No. PRIM1-0206H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GG-PRIM1(M1-F420 end) Protein was expressed in E. coli.
Species	Human
Source	E.coli
ProteinLength	M1-F420
Description	Catalytic subunit of the DNA primase complex and component of the DNA polymerase alpha complex (also known as the alpha DNA polymerase-primase complex - primosome/replisome) which play an essential role in the initiation of DNA synthesis. 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. 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. 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. Synthesizes 9-mer RNA primers (also known as the 'unit length' RNA primers). Incorporates only ribonucleotides in the presence of ribo- and deoxy-nucleotide triphosphates (rNTPs, dNTPs). Requires

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	template thymine or cytidine to start the RNA primer synthesis, with an adenine or guanine at its 5'-end. Binds single stranded DNA.
Form	Liquid
Endotoxin	< 0.01 EU per μg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50 mM Tris-HCl (pH7.5), 200 mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	PRIM1 primase, DNA, polypeptide 1 (49kDa) [Homo sapiens (human)]
Official Symbol	PRIM1
Synonyms	PRIM1; primase, DNA, polypeptide 1 (49kDa); DNA primase small subunit; DNA primase 1; primase p49 subunit; DNA primase subunit 48; DNA primase 49 kDa subunit; primase polypeptide 1, 49kDa; p49; MGC12308;
Gene ID	5557

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mRNA Refseq	NM_000946
Protein Refseq	NP_000937
MIM	176635
UniProt ID	P49642

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