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Product Datasheet

Recombinant 2019-nCoV Helicase (N-6His-MBP) EBT-EPT080

Article Name	Recombinant 2019-nCoV Helicase (N-6His-MBP)
Biozol Catalog Number	EBT-EPT080
Supplier Catalog Number	EPT080
Alternative Catalog Number	EBT-EPT080-50
Manufacturer	ELK Biotechnology
Category	Proteine/Peptide
Product Description	Recombinant 2019-nCoV Helicase is produced by our E.coli expression system and the target gene encoding Ala5325-Gln5925 is expressed with a 6His, MBP tag at the N-terminus....
Molecular Weight	Molecular weight: 112.8 KDa. Apparent molecular weight: 120 KDa, reducing conditions
UniProt	P0DTD1
Purity	Greater than 80% as determined by reducing SDS-PAGE.

Application Notes

Background: The non-structural protein 13 (nsp13) of SARS-CoV 2 is a helicase that separates double-stranded RNA or DNA with a 5-3 polarity, using the energy of nucleotide hydrolysis. A basic biochemical characterization of nsp13 demonstrated that it can unwind both doublestranded DNA and RNA in a 5-3 direction, and it can hydrolyze all deoxyribonucleotide and ribonucleotide triphosphates. Helicases are motor proteins that utilize the energy derived from nucleotide hydrolysis to unwind double-stranded nucleic acids into two single-stranded nucleic acids. Initially, helicases were only thought to be molecular engines that unwind nucleic acids during replication, recombination, and DNA repair. Recent studies have shown that they are also involved in other biological processes, including displacement of proteins from nucleic acid, movement of Holliday junctions, chromatin remodeling, catalysis of nucleic acid conformational changes, several aspects of RNA metabolism, including transcription, mRNA splicing, mRNA export, translation, RNA stability and mitochondrial gene expression. Some human diseases, including Blooms syndrome, Werners syndrome, and Xeroderma Pigmentosum have been associated with defects in helicase function