

Recombinant SARS-CoV-2 RNA-Dependent RNA Polymerase (RdRp), Active

Cat. No. HUM-369 Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant full-length SARS-CoV-2 RNA-dependent RNA polymerase (RdRp) was expressed in E. coli cells using a C-terminal His-tag and shown to be active in a chemiluminescent coupled assay. SARS-CoV-2, previously known as the 2019 Novel Coronavirus (2019-nCoV), causes the pandemic COVID-19 disease.

Tag

His

Background

In December 2019 a novel coronavirus, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), formerly known as the 2019 novel coronavirus (2019-nCoV) was identified in Wuhan, China, causing a world-wide pandemic. Three coronaviruses, SARS-CoV, MERS-CoV, and SARS-CoV-2 have been identified as being a highly pathogenic for humans, and there is currently no effective antiviral treatment. Therefore, studies are focused on rapid development of vaccines and antiviral drugs to prevent and treat coronavirus infection. There are several potential strategies to pharmacologically fight against the disease (COVID-19), including vaccines, monoclonal antibodies, oligonucleotide-based therapies, peptides, interferon therapies, and small-molecule drugs (Dömling & Gao, 2020). RNA-dependent RNA polymerase (RdRp) is an enzyme that is crucial to life cycle of RNA viruses including coronaviruses (Subissi et al., 2014). RdRp catalyzes the synthesis of viral RNA, thereby playing a central role in the replication and transcription cycle of COVID-19 viruses, possibly in complex with nsp7 and nsp8 (Gao et al., 2020). Therefore, RdRp is a prime target for nucleotide analog antiviral inhibitors, such as remdesivir, for development of new antiviral therapeutics (Wang et al., 2020).

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Formulation	50mM sodium phosphate, pH7.5, 300mM NaCl, 150mM imidazole, 1mM DTT, 10% glycerol.
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease
GENE INFORMATION	
Synonyms	SARS-CoV-2 RNA-Dependent RNA Polymerase (RdRp)

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