

# SARS-CoV-2 Main Protease Instruction Manual

## 【Product Name】

SARS-CoV-2 Main Protease

## 【Catalog Number】

EDE0004

## 【Package Specification】

300 µg/1 mg

## 【Product Description】

The SARS-CoV-2 Main Protease differs from the SARS-CoV Main Protease by only 12 amino acids, sharing over 96% sequence homology, with nearly identical structures. Main Protease plays a critical role in mediating viral replication and transcription, making it an important drug target.

This product is purified from E. coli strains overexpressing the SARS-CoV-2 Main Protease gene (Gene ID: 43740578). During expression, the N-terminal RGSSAVLQSG sequence is recognized and cleaved by Main Protease. The C-terminal His-tag is removed during purification using rhinovirus 3C protease, ensuring that no extra amino acids are present at either end of the peptide chain, maintaining consistency with the native SARS-CoV-2 Main Protease amino acid sequence.

## 【Applications】

Screening of SARS-CoV-2 inhibitors;  
Enzymatic activity studies;  
Structural research.

## 【Usage Recommendations】

- (1) Optimal temperature: 37°C
- (2) Optimal pH: 7.3

## 【Storage Conditions and Shelf Life】

Shelf life: 1 year. Store at -20°C.

For long-term storage, avoid repeated freeze-thaw cycles. Storage at -80°C is recommended.

## 【Quality Assurance】

The product undergoes multiple chromatography purification steps, with SDS-PAGE analysis showing a single, distinct band and a purity of 90%.

## 【Activity Definition】

One unit of enzyme activity is defined as the amount of enzyme required to catalyze the generation of 1 µmol of MCA-AVLQ per minute under the conditions of pH 7.0 and 37°C.

## 【Storage Solution】

20 mM Tris-HCl  
150 mM NaCl  
1 mM EDTA  
1 mM DTT  
50% Glycerol, pH 7.8.

## 【Heat Inactivation】

75°C, 10 min.

## 【Precautions】

- (1) Before use, centrifuge the tube briefly to collect any protein adhering to the tube cap or walls at the bottom of the tube.
- (2) This product is for scientific research use only by trained professionals. It is not intended for clinical diagnosis, treatment, or as a food additive.