

# TEST

Catalog Number: TEST0003

## PRODUCT INFORMATION

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### Expression system

Baculovirus

### Domain

23-335aa(p40)/23-215aa(p35)

### UniProt No.

P43432(p40)/P43431(p35)

### NCBI Accession No.

aaaa

### Additional Information

as

## PRODUCT SPECIFICATION

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### Molecular Weight

35.7 kDa (p40, 313aa)

22.5 kDa (p35, 199aa)

The heterodimeric II12 has a predicted Molecular weight of 58.3 kDa (512aa).

Molecular weight on SDS-PAGE will appear higher

### Concentration

0.5mg/ml (determined by Bradford assay)

### Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

### Purity

> 95% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

MERS-CoV, which causes the Middles East Respiratory Syndrome (MERS), belongs to a family of viruses known as

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coronaviruses. MERS-CoV has four structural proteins, known as the S (spike), E (envelope), M (membrane), and N (nucleocapsid) proteins. The spike protein, responsible for allowing the virus to attach to and fuse with the membrane of a host cell and is a large type I transmembrane protein containing two subunits, S1 and S2. S1 mainly contains a receptor binding domain (RBD), which is responsible for recognizing the cell surface receptor. S2 contains basic elements needed for the membrane fusion. The S protein plays key parts in the induction of neutralizing-antibody and T-cell responses, as well as protective immunity. Protein modeling experiments on the spike protein of the virus soon suggested that SARS-CoV-2 has sufficient affinity to the receptor angiotensin converting enzyme 2 (ACE2) on human cells to use them as a mechanism of cell entry.

## Amino acid Sequence

IL12B(p40)

MWELEKDVYV VEVDWTPDAP GETVNLTCDT PEEDDITWTS DQRHGVIGSG KTLTITVKEF LDAGQYTCHK GGETLSHSHL  
LLHKKENGIW STEILKNFKN KTFLKCEAPN YSGRFTCSWL VQRNMDLKFN IKSSSSSPDS RAVTCGMASL SAEKVTLDQR  
DYEKYSVSCQ EDVTCPTAEE TLPIELALEA RQQNKYENYS TSFFIRDIK PDPPKNLQMK PLKNSQVEVS WEYPDSWSTP  
HSYFSLKFFV RIQRKKEKMK ETEEGCNQKG AFLVEKTSTE VQCKGGNVCV QAQDRYYNSS CSKWACVPCR VRS

IL12A(p35)

RVIPVSGPAR CLSQSRNLLK TTDDMVKTAR EKLKHYSCA EDIDHEDITR DQTSTLKTCL PLELHKNESE LATRETSSTT  
RGSCLPQKT SLMMTLCLGS IYEDLKMVQT EFQAINAALQ NHHHQIILD KGMLVAIDEL MQLNHNGET LRQKPPVGEA  
DPYRVKMKLC ILLHAFSTRV VTINRVMGYL SSA<HHHHHH>

## General References

- Junghyun Goo., et al. (2020) *Virus Res.* 278:197863.  
Yan-Hua Li., et al. (2019) *Engineering.* 5:940-947.  
Lingshu Wang., et al. (2018) *J Virol.* 92:e02002-2017.  
Nicolas Papageorgiou., et al. (2016) *Acta Crystallogr D Struct Biol.* 72:192-202.  
Xiao-Yan Che., et al. (2004) *J Clin Microbiol.* 42:2629-2635.

## DATA

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### SDS-PAGE