

# Product Data Sheet



## Recombinant CoV-NL63 Nucleocapsid Protein

Product Code: 39507C

Sengenics Corporation Pte Ltd

covid@sengenics.com

[www.sengenics.com](http://www.sengenics.com)

### Description:

Recombinant CoV-NL63 Nucleocapsid protein lysates, full length. Protein is expressed in baculovirus expression system in insect cells using the patented KREX™ functional proteomics technology.

### Expression System:

Insect cell

### GenBank Accession:

AFD98817.1

### Synonym:

HCoV-NL63, Human Coronavirus NL63, N protein

### Protein Length:

377aa

### Expected Molecular Weight:

42.26kDa calculated from the sequence below  
([https://www.bioinformatics.org/sms/prot\\_mw.html](https://www.bioinformatics.org/sms/prot_mw.html))

### Form:

Liquid (Crude lysates)

### Lysis Buffer:

25mM HEPES, 50mM KCl, 4mM CaCl<sub>2</sub>, 20mM MgCl<sub>2</sub>, 20% Glycerol, 0.2% Triton X-100, 0.2% BSA, 2mM DTT, 1 tablet Protease inhibitor (in 5mL buffer)

### Storage Conditions:

-80° C, Avoid Freeze/Thaw Cycles

### Stability:

Lysates are stable for up to 18 months from production date

### Shipping:

Frozen shipment in dry ice

### Authorised Uses:

For Research Use Only\*

### Applications:

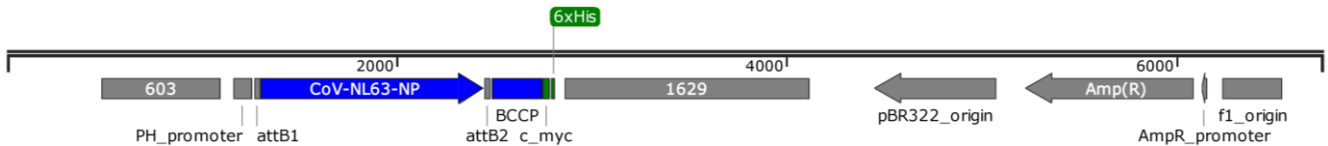
Identification, development or production of a high-affinity vaccine; Development of an antigen-based COVID-19 sero-diagnostic test; Characterisation of full-length, correctly folded and functional CoV-NL63 antigen.

### Sequence:

>CoV-NL63-NP

```
1 MASVNWADDR AARKKFPPPS FYMPLLSSD KAPYRVIPRN LVPIGKGNKD EQIGYWNVQE
61 RWRMRRGQRV DLPPKVHFYY LGTGPBKDLK FRQRSDGVVW VAKEGAKTVN TSLGNRKRKRNQ
121 KPLEPKFSIA LPPELSVVEF EDRSNSSRA SRSSTRNNS RDSSRSTSRQ QSRTRSDSNQ
181 SSDLVAAVT LALKNLGFDN QSKSPSSSGT STPKKPNKPL SQPRADKPSQ LKKPRWKRVP
241 TREENVIQCF GPRDFNHNMG DSDLVQNGVD AKGFPQLAEL IPNQAAALFFD SEVSTDEVGD
301 NVQITYTYKM LVAKDNKNLP KFIEQISAF T KPSSIKEMQS QSSHVAQNTV LNASIPESKP
361 LADDDSAIE IVNEVLH
```

### Vector Map:



\*All products and results from services are supplied handed over by us to you on the condition that they may only be used by you alone (and no other third parties for and/or on your behalf) as instructed and directed in writing by Sengenics for your own internal, non commercial and non revenue and non fee generating research purposes only. They are not in any circumstances to be used for any other purposes, including but not limited to, for therapeutics or diagnostics, nor are they intended for use in or on humans. By accepting delivery of our products or services, you are expressly agreeing to use our products or services for internal, non commercial and non revenue and non fee generating research purposes only as specified in this paragraph. Products are not to be repackaged or resold and results from services are not to be used for any purpose apart from the research purposes specified in this paragraph.

Any non research use requires parties entering into a royalty bearing collaboration, services, commercial and/or license agreement. The value of such license, royalties and/or revenue sharing is based upon the type of application of any Sengenics technologies, products or services for any purpose other than the internal, non commercial and non revenue and non fee generating research purposes specified in this paragraph.

\*\*Sengenics technologies are protected by the following patents: JP4730804, GB2361698, US7816098, EP1470229, AU2003238441, US8999897, JP4377242, CA 2474457, EP1485411, CA2518927C, EP1456668, AU2002352355, JP4781628, US20180305840. Trademarked in the United Kingdom UK00003167383 under classes. 05, 10 and 16

# Product Data Sheet



## Recombinant CoV-NL63 Nucleocapsid Protein

Product Code: 39507C

Sengenics Corporation Pte Ltd

covid@sengenics.com

[www.sengenics.com](http://www.sengenics.com)

### Sequence alignment with reference sequence (AFD98817.1):

```
CoV-NL63-NP      MASVNWADDRARKKKFPSPFYMPLLVSSDKAPYRVI PRNLVPIGKGNKDEQIGYWNVQE 60
AFD98817.1      MASVNWADDRARKKKFPSPFYMPLLVSSDKAPYRVI PRNLVPIGKGNKDEQIGYWNVQE 60
*****

CoV-NL63-NP      RWRMRGQRVDLPPKVHFFYYLGTGPHKDLKFRQRS DGVVWVAKEGAKTVNTSLGNRKRNQ 120
AFD98817.1      RWRMRGQRVDLPPKVHFFYYLGTGPHKDLKFRQRS DGVVWVAKEGAKTVNTSLGNRKRNQ 120
*****

CoV-NL63-NP      KPLEPKFSIALPPELSVVEFEDRSNNSSRASSRSSTRNNSRDSSRSTSRQQSRTRSDSNQ 180
AFD98817.1      KPLEPKFSIALPPELSVVEFEDRSNNSSRASSRSSTRNNSRDSSRSTSRQQSRTRSDSNQ 180
*****

CoV-NL63-NP      SSSDLVAAVTLALKNLGFDNQSKSPSSSGTSTPKKPNKPLSQPRADKPSQLKKPRWKRVP 240
AFD98817.1      SSSDLVAAVTLALKNLGFDNQSKSPSSSGTSTPKKPNKPLSQPRADKPSQLKKPRWKRVP 240
*****

CoV-NL63-NP      TREENVIQCFGRDFNHNMGDSDLVQNGVDAKGFPQLAELIPNQ AALFFDSEVSTDEVGD 300
AFD98817.1      TREENVIQCFGRDFNHNMGDSDLVQNGVDAKGFPQLAELIPNQ AALFFDSEVSTDEVGD 300
*****

CoV-NL63-NP      NVQITYTYKMLVAKDNKNLPKFIEQISAF TKPSSIKEMQSSSHVAQNTVLNASIPESKP 360
AFD98817.1      NVQITYTYKMLVAKDNKNLPKFIEQISAF TKPSSIKEMQSSSHVAQNTVLNASIPESKP 360
*****

CoV-NL63-NP      LADDDSAIIEIVNEVLH      377
AFD98817.1      LADDDSAIIEIVNEVLH      377
*****
```

### References:

1. Sengenics KREX™ proteomics technology [<https://www.sengenics.com/krex/>]
2. KREX™ is protected by multiple international patents worldwide [<https://www.sengenics.com/list-of-patents/>]
3. Blackburn, Jonathan M, and Aubrey Shoko. 2011. "Protein Function Microarrays for Customised Systems-Oriented Proteome Analysis." *Methods in molecular biology* (Clifton, N.J.) 785: 305–30
4. Beeton-Kempen, Natasha et al. 2014. "Development of a Novel, Quantitative Protein Microarray Platform for the Multiplexed Serological Analysis of Autoantibodies to Cancer-Testis Antigens." *International journal of cancer* 135(8): 1842–51
5. Other References [<https://www.sengenics.com/sengenics-krex-publications/>]

*\*All products and results from services are supplied handed over by us to you on the condition that they may only used by you alone (and no other third parties for and/or on your behalf) as instructed and directed in writing by Sengenics for your own internal, non commercial and non revenue and non fee generating research purposes only They are not in any circumstances to be used any other purposes, including but not limited to, for therapeutics or diagnostics, nor are they intended for use in or on humans By accepting delivery of our products or services, you are expressly agreeing to use our products or services for internal, non commercial and non revenue and non fee generating research purposes only as specified in this paragraph Products are not to be repackaged or resold and results from services are not to be use for any purpose apart from the research purposes specified in this paragraph.*

*Any non research use requires parties entering into a royalty bearing collaboration, services, commercial and/or license agreement The value of such license, royalties and/or revenue sharing is based upon the type of application of any Sengenics technologies, products or services for any purpose other than the internal, non commercial and non revenue and non fee generating research purposes specified in this paragraph.*

*\*\*Sengenics technologies are protected by the following patents: JP4730804, GB2361698, US7816098, EP1470229, AU2003238441, US8999897, JP4377242, CA 2474457, EP1485411, CA2518927C, EP1456668, AU2002352355, JP4781628, US20180305840. Trademarked in the United Kingdom UK00003167383 under classes. 05, 10 and 16*