

Product Data Sheet



Recombinant CoV-229E Nucleocapsid Protein Product Code: 39507B

Sengenics Corporation Pte Ltd
covid@sengenics.com
www.sengenics.com

Description:

Recombinant CoV-229E 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:

AGW80945.1

Synonym:

HCoV-229E, Human Coronavirus 229E, N protein

Protein Length:

389aa

Expected Molecular Weight:

43.47kDa calculated from the sequence below
(https://www.bioinformatics.org/sms/prot_mw.html)

Form:

Liquid (Crude lysates)

Lysis Buffer:

25mM HEPES, 50mM KCl, 4mM CaCl₂, 20mM MgCl₂, 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:

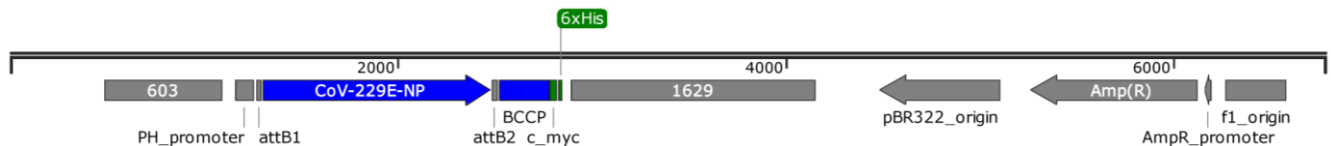
Identification, development or production of a high-affinity vaccine; Development of an antigen-based COVID-19 sero-diagnostic test; Characterisation of full-length, correctly folded and functional CoV-229E antigen.

Sequence:

>CoV-229E-NP

```
1  MATVKWADAS  EPQGRGRQRI  PYSLYSPLL  DSEQPWKVI  P  RNLVLPINK  KNKLI  GYWNV
61  QKRFRTRK  R  G  K  RVDLSP  K  LHF  YYLGTG  P  HKD  AKFRER  V  EGV  VWVA  VD  G  AKT  EPTGY  G  VRRK
121  NSEPEI  P  HFN  QKLPNG  V  TVV  EEPDSR  A  PSR  SQSR  S  QSRGR  GESKP  Q  SRNP  SDRN  H  NSQD
181  DIMKAVA  A  AAL  KSLGF  D  KPQE  KDKK  S  AKTGT  PKPS  R  NQSPA  SSQT  S  AKSLA  RSQS  S  ETKEQ
241  KHEMQ  K  PRWK  RQPND  D  VTSN  VTQCF  G  PRDL  DHNF  G  SAGVV  ANGV  K  AKGY  P  QFAEL  V  PSTA
301  AMLFD  S  H  I  VS  KESGN  T  VVLT  FTTR  V  TVPK  D  HPHL  G  KFLEE  LNAF  T  REM  Q  Q  HPLL  N  PSALE
361  FNPSQ  T  SPAT  AEPVR  D  EVSI  ETDI  I  DEVN
```

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-229E Nucleocapsid Protein Product Code: 39507B

Sengenics Corporation Pte Ltd
covid@sengenics.com
www.sengenics.com

Sequence alignment with reference sequence (AGW80945.1):

```
CoV-229E-NP      MATVKWADASEPQRGRQGRIPYSLYSPLLDVSEQPWKVI PRNLVPI NKKDKNKLIGYWNV 60
AGW80945.1      MATVKWADASEPQRGRQGRIPYSLYSPLLDVSEQPWKVI PRNLVPI NKKDKNKLIGYWNV 60
*****

CoV-229E-NP      QKRFRTRKGRVDLSPKLHFYYLGTGPHKDAKFRERVEGVVWVAVDGAKTEPTGYGVRRK 120
AGW80945.1      QKRFRTRKGRVDLSPKLHFYYLGTGPHKDAKFRERVEGVVWVAVDGAKTEPTGYGVRRK 120
*****

CoV-229E-NP      NSEPEI PHFNQKLPNGVTVVVEEPDSRAPSRQSRSQSRGRGESKQPQSRNPSSDRNHNSQD 180
AGW80945.1      NSEPEI PHFNQKLPNGVTVVVEEPDSRAPSRQSRSQSRGRGESKQPQSRNPSSDRNHNSQD 180
*****

CoV-229E-NP      DIMKAVAAALKSLGFDKPKQEKDKKSAKTGTPKPSRNQSPASSQTS AKSLARSQSSETKEQ 240
AGW80945.1      DIMKAVAAALKSLGFDKPKQEKDKKSAKTGTPKPSRNQSPASSQTS AKSLARSQSSETKEQ 240
*****

CoV-229E-NP      KHEMQKPRWKRQPNDDVTSNVTQCFGPRDL DHNFGSAGVVANGVKAKGY PQFAELVPSTA 300
AGW80945.1      KHEMQKPRWKRQPNDDVTSNVTQCFGPRDL DHNFGSAGVVANGVKAKGY PQFAELVPSTA 300
*****

CoV-229E-NP      AMLFDSHIVSKESGNTVVLTFTRVTVPKDHPHLGKFL EELNAFTREMQQHPLLNPSALE 360
AGW80945.1      AMLFDSHIVSKESGNTVVLTFTRVTVPKDHPHLGKFL EELNAFTREMQQHPLLNPSALE 360
*****

CoV-229E-NP      FNPSQTS PATAEPVRDEVSIETDI IDEVN 389
AGW80945.1      FNPSQTS PATAEPVRDEVSIETDI IDEVN 389
*****
```

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*