

Product Data Sheet



Recombinant SARS-CoV-2 Nucleocapsid Protein Product Code: 39501

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Description:

Recombinant SARS-CoV-2 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:

MN908947.3

Synonym:

COVID-19, 2019-nCoV, SARS Coronavirus 2, N protein

Protein Length:

419aa

Expected Molecular Weight:

45.64kDa 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:

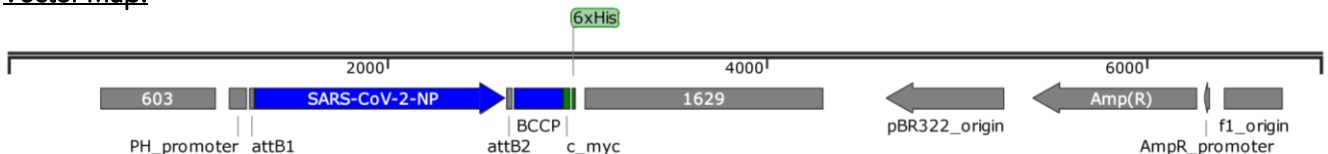
Identification, development or production of a high-affinity vaccine; Development of an antigen-based COVID-19 sero-diagnostic test; Characterisation of full-length, correctly folded and functional SARS-CoV-2 antigens.

Sequence:

>SARS-CoV-2-NP

```
1  MSDNGPQNQR  NAPRITFGGP  SDSTGSNONG  ERSGARSKQR  RPQGLPNNTA  SWFTALTQHG
61  KEDLKFPRGQ  GVPINTNSSP  DDQIGYYRRA  TRRIRGGDGK  MKDLSRWYF  YYLGTGPEAG
121 LPYGANKDGI  IWVATEGALN  TPKDHIGTRN  PANNAIIVLQ  LPQGTTLPGK  FYAEGSRGGS
181 QASSRSSRS  RNSSRNSTPG  SSRGTSPARM  AGNGGDAALA  LLLLDRLNQL  ESKMSGKGQQ
241 QQGQTVTKKS  AAEASKKPRQ  KRTATKAYNV  TQAFGRRGPE  QTQGNFGDQE  LIRQGTDYKH
301 WPQIAQFAPS  ASAFFGMSRI  GMEVTPSGTW  LTYTGAIKLD  DKDPNFKDQV  ILLNKHIDAY
361 KTFPPTPEPK  DKKKKADETQ  ALPQRQKQKQ  TVTLLPAADL  DDFSKLQQS  MSSADSTQA
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Vector Map:



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Sequence alignment with reference sequence (MN908947.3):

```
SARS-CoV-2-NP      MSDNGPQNQRNAPRITFGGSPDSTGSNQNGERSGARSKQRRPQGLPNNTASWFTALTQHG 60
MN908947.3_N      MSDNGPQNQRNAPRITFGGSPDSTGSNQNGERSGARSKQRRPQGLPNNTASWFTALTQHG 60
*****

SARS-CoV-2-NP      KEDLKFPRGQGVPIINTNSSPDDQIGYRRATRIRGGDGKMKDLSPRWYFYLLGTGPEAG 120
MN908947.3_N      KEDLKFPRGQGVPIINTNSSPDDQIGYRRATRIRGGDGKMKDLSPRWYFYLLGTGPEAG 120
*****

SARS-CoV-2-NP      LPYGANKDGI IWVATEGALNTPKDHIGTRNPANNAIIVLQLPQGTTLPKGFYAEGSRGGS 180
MN908947.3_N      LPYGANKDGI IWVATEGALNTPKDHIGTRNPANNAIIVLQLPQGTTLPKGFYAEGSRGGS 180
*****

SARS-CoV-2-NP      QASSRSSSRNSSRNSTPGSSRGTS PARMAGNGGDAALALLLLDRLNQLLESKMSGKGQQ 240
MN908947.3_N      QASSRSSSRNSSRNSTPGSSRGTS PARMAGNGGDAALALLLLDRLNQLLESKMSGKGQQ 240
*****

SARS-CoV-2-NP      QQGQTVTKKSAAEASKKPRQKRTATKAYNVTQAFGRRGPEQTQGNFGDQELIRQGTDYKH 300
MN908947.3_N      QQGQTVTKKSAAEASKKPRQKRTATKAYNVTQAFGRRGPEQTQGNFGDQELIRQGTDYKH 300
*****

SARS-CoV-2-NP      WPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYTGAIKLDDKDPNFKDQVILLNKHIDAY 360
MN908947.3_N      WPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYTGAIKLDDKDPNFKDQVILLNKHIDAY 360
*****

SARS-CoV-2-NP      KTFPPTPEPKDKKKKADETAQALPQRQKKQQTVTLLPAADLDDFSKQLQQSMSSADSTQA 419
MN908947.3_N      KTFPPTPEPKDKKKKADETAQALPQRQKKQQTVTLLPAADLDDFSKQLQQSMSSADSTQA 419
*****
```

References:

1. Sengeics 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/>]

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