

Product Data Sheet



Recombinant CoV-HKU1 Nucleocapsid Protein

Product Code: 39507A

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Description:

Recombinant CoV-HKU1 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:

ABD75533.1

Synonym:

HCoV-HKU1, Human Coronavirus HKU1, N protein

Protein Length:

441aa

Expected Molecular Weight:

49.15kDa 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:

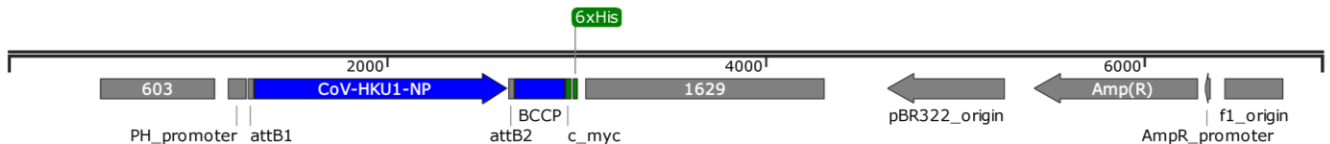
Identification, development or production of a high-affinity vaccine; Development of an antigen-based COVID-19 sero-diagnostic test; Characterisation of full-length, correctly folded and functional CoV-HKU1 antigen.

Sequence:

>CoV-HKU1-NP

```
1 MSYTPGHYAG SRSSSGNRSG ILLKTSWADQ SERNYQTFNR GRKTQPKFTV STQPQNTIP
61 HYSWFSGITQ FQKGRDFKFS DGQGVPIAFG VPPSEAKGYW YRHSRRSFKT ADGQQKQLLP
121 RWYFYLLGTG PYANASYGES LEGVFWVANH QADTSTPSDV SSRDPTTQEA IPTRFPPGTI
181 LPQGYVEGS GRSASNSRPG SRSQSRGPNN RSLRSNSNF RHSDSIVKPD MADEIANLVL
241 AKLGKDSKPQ QVTKQNAKEI RHKILTKPRQ KRTPNKHCNV QQCFGKRGPS QNFGNAEMLK
301 LGTNDPQFPI LAELAPTPGA FFFGSKLDLV KRDSEADSPV KDFVELHYSG SIRFDSTLPG
361 FETIMKVLEE NLNAYVNSNQ NTDSDSLSSK PQRKRGVKQL PEQFDSLNLIS AGTQHISNDF
421 TPEDHSLLAT LDDPYVEDSV A
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Vector Map:



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Sequence alignment with reference sequence (ABD75533.1):

```
CoV-HKU1-NP      MSYTPGHYAGSRSSSGNRSGILKKTSWADQSERNYQTFNRRGKTPKFTVSTQPQNTIP 60
ABD75533.1      MSYTPGHYAGSRSSSGNRSGILKKTSWADQSERNYQTFNRRGKTPKFTVSTQPQNTIP 60
*****

CoV-HKU1-NP      HYSWFSGITQFQKGRDFKFSGQGQVPIAFGVPPSEAKGYWYRHSRRSFKTADGQQKQLLP 120
ABD75533.1      HYSWFSGITQFQKGRDFKFSGQGQVPIAFGVPPSEAKGYWYRHSRRSFKTADGQQKQLLP 120
*****

CoV-HKU1-NP      RWYFYLLGTGPYANASYGESLEGVFWVANHQADTSTPSDVSSRDPTTQEAIPTRFPPGTI 180
ABD75533.1      RWYFYLLGTGPYANASYGESLEGVFWVANHQADTSTPSDVSSRDPTTQEAIPTRFPPGTI 180
*****

CoV-HKU1-NP      LPQGYVEGSGRSASNSRPGSRSQSRGPNRSLRSNSNFRHSDSIVKPDMADEIANLVL 240
ABD75533.1      LPQGYVEGSGRSASNSRPGSRSQSRGPNRSLRSNSNFRHSDSIVKPDMADEIANLVL 240
*****

CoV-HKU1-NP      AKLGKDSKPQQVTKQNAKEIRHKILTKPRQKRTPNKHCVVQQCFGKRGPSQNFNAEMLK 300
ABD75533.1      AKLGKDSKPQQVTKQNAKEIRHKILTKPRQKRTPNKHCVVQQCFGKRGPSQNFNAEMLK 300
*****

CoV-HKU1-NP      LGTNDPQFPILAELAPTPGAFFFGSKLDLVKRDSEADSPVKDVFELHYSGSIRFDSTLPG 360
ABD75533.1      LGTNDPQFPILAELAPTPGAFFFGSKLDLVKRDSEADSPVKDVFELHYSGSIRFDSTLPG 360
*****

CoV-HKU1-NP      FETIMKVLEENLNAYVNSNQNTDSDSLSSKPQRKRGVKQLPEQFDSLNLNSAGTQHISNDF 420
ABD75533.1      FETIMKVLEENLNAYVNSNQNTDSDSLSSKPQRKRGVKQLPEQFDSLNLNSAGTQHISNDF 420
*****

CoV-HKU1-NP      TPEDHSLLATLDDPYVEDSVA      441
ABD75533.1      TPEDHSLLATLDDPYVEDSVA      441
*****
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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/>]

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