

Product Data Sheet



Recombinant MERS-CoV Nucleocapsid Protein

Product Code: 39506

Sengenics Corporation Pte Ltd

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Description:

Recombinant MERS-CoV 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:

AKQ21082.1

Synonym:

MERS-CoV, MERS Coronavirus, N protein, NC

Protein Length:

413aa

Expected Molecular Weight:

45.06kDa 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:

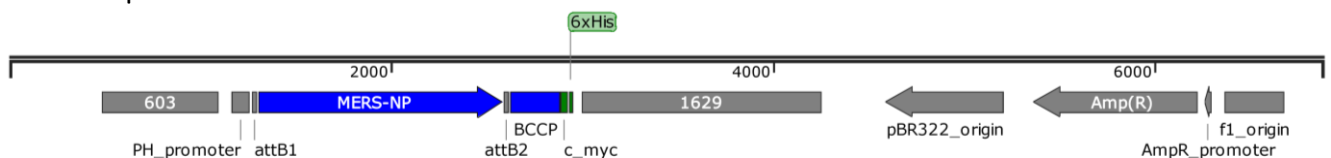
Identification, development or production of a high-affinity vaccine; Development of an antigen-based COVID-19 sero-diagnostic test; Characterisation of full-length, correctly folded and functional MERS-CoV antigen.

Sequence:

>MERS-CoV-NP

```
1 MASPAAPRAV SFADNNDITN TNL SRGRGRN PKPRAAPNNT VSWYTGLTQH GKVPLTFPPG
61 QGVPLNANST PAQNAGYWR R QDRKINTGNG IKQLAPRWYF YYTGTGPEAA LPFRAVKDGI
121 VVHEDGATD APSTFGTRNP NNSDAIVTQF APGTKLPKNF HIEGTGGNSQ SSSRASSVSR
181 NSSRSSSQGS RSGNSTRGTS PGPSGIGAVG GDLLYL DLLN RLQALESKV KQSQPKVITK
241 KDAAAAKNKM RHKRTSTKSF NMVQAFGLRG PGDLQGNFGD LQLNKLGTED PRWPQIAELA
301 PTASAFMGMS QFKLTHQND DHGNPVYFLR YSGAIKLPK NPNYNKWLEL LEQNIDAYKT
361 FPKKEKKQKA PKEESTDQMS EPPKEQRVQG SITQRTRTRP SVQPGPMIDV NTD
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Vector Map:



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Sequence alignment with reference sequence (AKQ21082.1):

```
MERS-CoV-NP      MASPAAPRAVSFADNNDITNTNLSRGRGRNPKPRAAPNNTVSWYTGLTQHKGKVP LTFPPG 60
AKQ21082.1      MASPAAPRAVSFADNNDITNTNLSRGRGRNPKPRAAPNNTVSWYTGLTQHKGKVP LTFPPG 60
*****

MERS-CoV-NP      QGVPLNANSTPAQNAGYWRRQDRKINTGNGIKQLAPRWYFYTGTGPEAALPFRVAVKDI 120
AKQ21082.1      QGVPLNANSTPAQNAGYWRRQDRKINTGNGIKQLAPRWYFYTGTGPEAALPFRVAVKDI 120
*****

MERS-CoV-NP      VWVHEDGATDAPSTFGTRPNNDISAIVTQFAPGTKLPKNFHIEGTGGNSQSSSRASSLSR 180
AKQ21082.1      VWVHEDGATDAPSTFGTRPNNDISAIVTQFAPGTKLPKNFHIEGTGGNSQSSSRASSVSR 180
*****

MERS-CoV-NP      NSSRSSSQGSRSGNSTRGTSPPGSGIGAVGGDLLYLDLLNRLQALESGKVKQSQPKVITK 240
AKQ21082.1      NSSRSSSQGSRSGNSTRGTSPPGSGIGAVGGDLLYLDLLNRLQALESGKVKQSQPKVITK 240
*****

MERS-CoV-NP      KDAAAAKNMRHKRTSTKS FNMVQAFGLRGPGLDQGNFGDLQLNKLGTEDPRWPQIAELA 300
AKQ21082.1      KDAAAAKNMRHKRTSTKS FNMVQAFGLRGPGLDQGNFGDLQLNKLGTEDPRWPQIAELA 300
*****

MERS-CoV-NP      PTASAFMGMSQFKLTHQNNDDHGNPVYFLRYSGAIKLDPKNPYNKWLELLEQNI DAYKT 360
AKQ21082.1      PTASAFMGMSQFKLTHQNNDDHGNPVYFLRYSGAIKLDPKNPYNKWLELLEQNI DAYKT 360
*****

MERS-CoV-NP      FPKKEKKQKAPKEESTDQMSEPPKEQRVQGSITQRTRTRPSVQPGPMIDVNTD      413
AKQ21082.1      FPKKEKKQKAPKEESTDQMSEPPKEQRVQGSITQRTRTRPSVQPGPMIDVNTD      413
*****
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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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