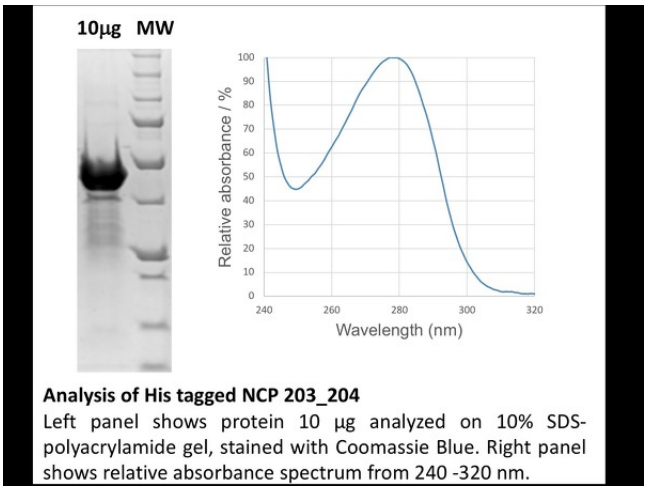
SARS-CoV-2 Nucleocapsid Protein (203/204: RG>KR mutant, His-tagged)

A purified, soluble, recombinant SARS-CoV-2 nucleocapsid protein, His-tagged



Analysis of His tagged NCP 203_204
Left panel shows protein 10 µg analyzed on 10% SDS-polyacrylamide gel, stained with Coomassie Blue. Right panel shows relative absorbance spectrum from 240 -320 nm.

Category
Biological Materials
Research Reagents/New Research Reagents

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A purified, recombinant SARS-CoV-2 nucleocapsid protein (R203K–G204R).

This protein represents the nucleocapsid protein from the variant of the original SARS-CoV-2 strain, in which the arginine-glycine amino acids in position 203-204 have been substituted with lysine-arginine (203/204: RG>KR mutation).

Details (see spec sheet for more details)

- Host: E. coli
- Tag: minimal N-terminal six-histidine tagged (HHHHHHG)
- Purity: >95%, assessed by SDS-PAGE.
- Formulation: Aqueous solution flash frozen at -80 °C
- Quantities available: 1 mg, 10 mg & 100 mg. Multiples may be ordered.

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Please select the correct licence to reflect the quantity being ordered.

Sequence

MHHHHHHGSDNGPQNQRNAPRITFGGPSDSTGSNQNGERSGARSKQRRPQGLPNNTASWF

TALTQHGKEDLKFPRGQGVPINTNSSPDDQIGYYRRATRRIRGGDGKMKDLSPRWYFYYL

GTGPEAGLPYGANKDGIIWVATEGALNTPKDHIGTRNPANNAAIVLQLPQGTTLPKGFYA

EGSRGGSQASSRSSSRSRNSSRNSTPGSSKRTSPARMAGNGGDAALALLLLDRLNQLESK

MSGKGQQQQGQTVTKKSAAEASKKPRQKRTATKAYNVTQAFGRRGPEQTQGNFGDQELIR

QGTDYKHWPQIAQFAPSASAFFGMSRIGMEVTPSGTWLTYTGAIKLDDKDPNFKDQVILL

NKHIDAYKTFPPTEPKKDKKKKADETQALPQRQKKQQTVTLLPAADLDDFSKQLQQSMSS

ADSTQA

(Note: Amino acids 9-426 of the sequence above matches residues 2-419 of SARS-CoV-2 Nucleocapsid protein GenBank entry QIQ08827)

Background

The coronavirus nucleocapsid (N) protein has a structural role, binding to the viral RNA and forming the nucleocapsid. The N protein is highly immunogenic and abundantly expressed during infection which makes it an important marker in diagnostic assays for COVID-19. Recombinant nucleocapsid proteins are commonly used in viral quantification assays and in ELISAs for detection of human antibodies against coronavirus.

Many isolates encode this variant, for a fuller list of identical protein sequences see https://www.ncbi.nlm.nih.gov/ipg/QIQ08827.1

Ordering

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Keywords

SARS-CoV-2, nucleocapsid, protein, coronavirus, COVID, COVID-19, 2019-ncov, variant, mutant, 203-204, RG>KR, R203K, G204R, arginine-glycine, lysine-arginine

Further information

Further information on the research group may be found at:

https://www.sheffield.ac.uk/medicine/people/iicd/jon-r-sayers

https://www.sheffield.ac.uk/news/nr/sheffield-coronavirus-antibody-research-1.893554