

# 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

### **Authors**

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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.

For other pack sizes/larger quantities or questions regarding aliqoting please contact us.

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

# Sequence

MHHHHHHGSDNGPQNQRNAPRITFGGPSDSTGSNQNGERSGARSKQRRPQGLPNNTASWF
TALTQHGKEDLKFPRGQGVPINTNSSPDDQIGYYRRATRRIRGGDGKMKDLSPRWYFYYL
GTGPEAGLPYGANKDGIIWVATEGALNTPKDHIGTRNPANNAAIVLQLPQGTTLPKGFYA
EGSRGGSQASSRSSSRSSSRNSSRNSSRNSTPGSSKRTSPARMAGNGGDAALALLLLDRLNQLESK
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 <a href="https://www.ncbi.nlm.nih.gov/ipg/QIQ08827.1">https://www.ncbi.nlm.nih.gov/ipg/QIQ08827.1</a>

### **Ordering**

Particular attention should be paid when selecting the licence.

# **Delivery and checkout questions**

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<u>PLEASE NOTE:</u> The customer will be contacted by the courier to clear the shipment at customs and pay any customs or import duty. **Please provide the appropriate contact details, at the checkout stage, for the person responsible for making payment for customs charges and be sure to comply with courier enquiries in order to avoid shipment delays.** 

# 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