



Recombinant SARS-CoV-2 Nucleocapsid (D63G, R203M, D377Y) Protein [His] (DAGC674)

This product is for research use only and is not intended for diagnostic use.

PRODUCT INFORMATION

Product Overview	A DNA sequence encoding the SARS-CoV-2 Nucleocapsid (YP_009724397.2, with mutations D63G, R203M, D377Y) (Met1-Ala419) was expressed with a polyhistidine tag at the N-terminus. The mutations were identified in the SARS-CoV-2 variant (known as variant B.1.617.2) which emerged in the India.
Species	SARS-CoV-2
Purity	> 90 % as determined by SDS-PAGE.
Conjugate	His
Applications	SDS-PAGE
Molecular Weight	The recombinant SARS-CoV-2 Nucleocapsid consists of 426 amino acids and predicts a molecular mass of 46.6 kDa.
Format	Lyophilized
Size	100 µg
Buffer	Lyophilized from sterile 50 mM PB, 500 mM NaCl, pH 7.0.
Preservative	None
Storage	Store it under sterile conditions at -20°C to -80°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

BACKGROUND

Introduction

Coronaviruses are enveloped viruses with a positive-sense RNA genome and with a nucleocapsid of helical symmetry. Coronavirus nucleoproteins localize to the cytoplasm and the nucleolus, a subnuclear structure, in both virus-infected primary cells and in cells transfected with plasmids that express N protein. The coronavirus N protein is required for coronavirus RNA synthesis and has RNA chaperone activity that may be involved in template switch. Nucleocapsid protein is the most abundant protein of coronavirus. During virion assembly, N protein binds to viral RNA and leads to the formation of the helical nucleocapsid. Nucleocapsid protein is a highly immunogenic phosphoprotein also implicated in viral genome replication and in modulating cell signaling pathways. Because of the conservation of the N protein sequence and its strong immunogenicity, the N protein of coronavirus is chosen as a diagnostic tool.

Keywords

SARS-CoV-2; coronavirus; SARS-CoV-2 NP; SARS-CoV-2 Nucleocapsid Protein; SARS-CoV-2 N Protein