

## Recombinant nucleoprotein (C-term) antigen for SARS-CoV (2003) (NP-CTD)

**CATALOG NUMBER:** RAG0076

**LOT NUMBER:** #

**RECOMBINANT ANTIGEN:** SARS-CoV nucleoprotein C-terminal domain (Wang *et al.* 2003). This protein shows 92.5% identity with NP COVID-19.

**DESCRIPTION:** a recombinant antigen has been prepared by expressing aa 211 to 387 from de nucleoprotein of SARS-CoV outbreak 2003.

**PRESENTATION:** liquid protein solution

**SOURCE:** *Escherichia coli*

**MOLECULAR WEIGHT:** determined by SDS-PAGE, the protein band is between the molecular markers of 35,000 Da and 25,000 Da, while relative molecular mass calculated from amino acid sequence is 23,866.07 Da.

**BATCH COMPOSITION:**

COMPONENTS	COMPOSITION
His-NP-CTD	recombinant nucleoprotein with a his-tag
Storage buffer	20 mM phosphate buffer pH 7, 0.15 M NaCl, 0.25 M trehalose and 0.1% polyoxyethylene (10) tridecyl ether

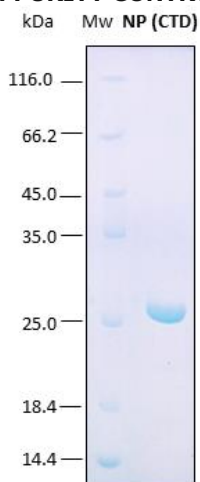
**QUALITY CONTROL:**

**1. PROTEIN CONCENTRATION DETERMINED ESPECTROPHOTOMETRICALLY**

DO<sub>280</sub> = 0.941  
 A<sub>0.1%</sub> (=1 g/l) = 0.941  
 CONCENTRATION\*: 1 mg/ml

\* The measurement of the protein concentration has been performed with the theoretical extinction coefficient of the recombinant protein obtained from Gill and vonHippel, 1989

**2. PURITY CONTROL IN SDS-PAGE: 15%**



**Figure 1.** SDS-PAGE analysis (15%) of 1 µl of recombinant NP (CTD). Purity is > 95% as determined by gel electrophoresis.

**3. ABSENCE OF PRECIPITATION AFTER A FREEZING AND THAWING CYCLE: ok**

**LOT SPECIFICATIONS:**

- 1. CONCENTRATION:** 1 mg/ml
- 2. TOTAL QUANTITY PER ALIQUOT:** 1 mg
- 3. TOTAL VOLUME PER ALIQUOT:** 1 ml
- 4. STORAGE:** Protein is shipped with dry ice. Upon arrival, it should be aliquoted in order to avoid repeated freezing and thawing cycles and stored at -20°C to -80°C.
- 5. APPLICATIONS:** not tested. Where this product has not been tested for use in a particular technique, this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates.
- 6. OBSERVATIONS:** proteins should be maintained frozen at high concentrations. The dilution to be performed for ELISA assays should be made with a small quantity of protein, the same day of the experiment. In order to defrost the protein, maintain the aliquot at 25°C without shaking to avoid aggregation. Prior making test dilutions and after defrosting the protein, is recommended to remove possible protein aggregates by centrifuging the stock solution, avoiding alterations in the immobilization of the biomolecule to the solid surface.

**RELATED PRODUCTS:**

NP (MID), NP (NTD).

**BIBLIOGRAPHY:**

**Wang et al.** The structure analysis and antigenicity study of the N protein of SARS-CoV. 2003. *Genomics Proteomics Bioinformatic*, 1 (2): 145-54.

**Gill SC, von Hippel PH.** Calculation of protein extinction coefficients from amino acid sequence data. *Anal Biochem.* 1989 Nov 1;182(2):319-26.

**Important Notes:** During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200  $\mu$ l or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the containers cap.

Although recombinant antigens are expressed in non-pathogenic *E. coli* and bacterial integrity is destroyed during purification, the antigen preparation should be handled as potentially infectious.

**FOR RESEARCH AND COMMERCIAL USE *IN VITRO*: not for human *in vivo* or therapeutic use.**