

DOCUMENTATION FOR VACCINES PRODUCED FROM ANIMAL CELLS CONTAINING RESIDUAL ANIMAL CELL DNA AND/OR CELL PROTEINS:

1. Medical Study “Issues Associated With Residual Cell-substrate DNA in Viral Vaccines”

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<https://pubmed.ncbi.nlm.nih.gov/19285882/>

Sheng-Fowler, Lewis, and Peden state, “The presence of some residual cellular DNA derived from the production-cell substrate in viral vaccines is inevitable.”

2. Ingredients in cell-based flu vaccines, recombinant flu vaccines, and egg-based flu vaccines are the following (<https://vaccines.procon.org/vaccine-ingredients-and-manufacturer-information/>):

Cell-Based Flu Vaccines

According to the manufacturer’s insert, Flucelvax contains MDCK cell protein (canine), MDCK DNA (canine)

Recombinant Flu Vaccines

According to the manufacturer’s insert, Flublok contains Baculovirus and *spodoptera frugiperda* (insect/moth) cell proteins, baculovirus and cellular DNA

Egg-Based Flu Vaccines

All egg-based flu vaccines contain ovalbumin which is chicken egg protein from the allantoic fluid of the fertilized chicken egg).

INGREDIENTS OF THE NOVAVAX VACCINE FROM FDA FACT SHEET FOR HEALTHCARE PROVIDERS ADMINISTERING VACCINE (p.25):

13 DESCRIPTION

The Novavax COVID-19 Vaccine, Adjuvanted is a colorless-to-slightly yellow, clear-to-mildly opalescent suspension for intramuscular injection that is free from visible particles. Each 0.5 mL dose of the Novavax COVID-19 Vaccine, Adjuvanted contains 5 mcg of SARS-CoV-2 recombinant spike (rS) protein and 50 mcg Matrix-M adjuvant. The Matrix-M adjuvant is composed of Fraction-A (42.5 mcg) and Fraction-C (7.5 mcg) of saponin extracts from the soapbark tree, *Quillaja saponaria* Molina.

The rS protein is produced by recombinant DNA technology using a baculovirus expression system in an insect cell line that is derived from Sf9 cells of the *Spodoptera frugiperda* species.

Each dose of the Novavax COVID-19 Vaccine, Adjuvanted also contains the following ingredients: cholesterol, phosphatidylcholine, potassium dihydrogen phosphate (3.85 mcg), potassium chloride (2.25 mcg), disodium hydrogen phosphate dihydrate (14.7 mcg), disodium hydrogen phosphate heptahydrate (2.465 mg), sodium dihydrogen phosphate monohydrate (0.445 mg), sodium chloride (8.766 mg) and polysorbate 80 (0.050 mg), and Water for Injection. The pH is adjusted with sodium hydroxide or hydrochloric acid.

Each 0.5 mL dose of the Novavax COVID-19 Vaccine, Adjuvanted may also contain residual amounts of baculovirus and Sf9 cell proteins (≤ 0.96 mcg), baculovirus and cellular DNA (≤ 0.00016 mcg), lentil lectin (< 0.025 mcg), methyl- α -D-mannopyranoside (2 mcg), simethicone (< 0.92 mcg), pluronic F-68 (< 2.19 mcg), Triton X-100 (< 0.025 mcg), and Tergitol (NP9) (< 0.05 mcg).

The Novavax COVID-19 Vaccine, Adjuvanted does not contain preservative.

The vial stoppers are not made with natural rubber latex.