Data in Support of Novavax XBB.1.5 Vaccine

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Novavax Vaccine Platform: Recombinant Protein Particle Plus Matrix-M™ Adjuvant

Recombinant protein particle
- Native 3-dimensional conformation
- Truncated *S. frugiperda* glycans
- Particulate structure facilitates antigen presentation and processing

Matrix-M adjuvant
- Induces robust neutralizing antibodies
- Induces polyfunctional CD4+ Th1
Novavax XBB.1.5 Vaccine 2023-2024 Formulation for Individuals ≥12 years

**Presentation**
- 2 vials per carton
- 5 doses per vial
- 0.5 mL dose
- Ready to use

**Transportation & Storage**
- Stable at 2°C to 8°C
- 9-month shelf life*
- Use within 12 hours of first puncture

**Dosing***
- Single dose for previously vaccinated with any COVID-19 vaccine
- If unvaccinated, 2-dose series

* FDA review ongoing
XBB.1.5 Primary Series Neutralizing Responses

Non-human primate data demonstrates Novavax vaccine technology induces broadly neutralizing antibodies with primary vaccination
Neutralizing Responses in Macaques: Primary Vaccination with XBB.1.5

Primary vaccination induces comparable neutralizing responses to newly emerging variants

N = 10; Assay validated for human samples for Prototype and XBB.1.5

Variants Pseudovirus

Pseudovirus Neutralization (ID50, GMT) 95% CI

LOD
XBB.1.5 Booster Dose Neutralizing Responses

Neutralizing responses against XBB subvariants achieve levels comparable to homologous XBB.1.5 response
Neutralizing Responses in Macaques: Primary Vaccination Bivalent BA.5 Vaccine and Boost with XBB.1.5

Boosting with XBB.1.5 induces robust neutralizing responses against emerging XBB subvariants

Bivalent Primary and XBB.1.5 Booster Dose

5 weeks Pre Booster  |  2 weeks Post XBB.1.5 Boost

Pseudovirus Neutralization (ID50, GMT) 95% CI

N = 4-5
Cellular Immune Responses

Consistent responses against all variants including emerging XBB subvariants
Th1-Biased CD4+ T Cell Response in Rhesus Macaques Immunized with Two Doses of XBB.1.5 Vaccine

Consistent responses against all variants including emerging XBB subvariants

Primary 2 Dose: XBB.1.5

**Th1**

- IFN-γ
- IL-2
- TNF-α

**Th2**

- IL-5
- IL-13

Th1/Th2 Cytokine+ Cells (per 10⁶ CD4+ T cells)

Mean

<table>
<thead>
<tr>
<th>Stimulation rS</th>
<th>Th1</th>
<th>Th2</th>
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<tbody>
<tr>
<td>Prototype XBB.1.5</td>
<td>IFN-γ</td>
<td>IL-5</td>
</tr>
<tr>
<td>XBB.1.16.6</td>
<td>IL-2</td>
<td>IL-13</td>
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<tr>
<td>EG.5.1</td>
<td>TNF-α</td>
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N = 5
Public Health Value of Novavax XBB.1.5 Vaccine

• Only protein-based COVID-19 vaccine in US
• Non-clinical data supports use of Novavax XBB.1.5 vaccine
  - Induces robust neutralizing responses against XBB subvariants
  - Generates a polyfunctional Th1-biased CD4+ cellular immune response against XBB subvariants
• Presentation facilitates ease of use
  - Same dose/formulation/vial for all approved indications (0.5mL/dose)
  - Ready to use and refrigerator stable (no mixing, dilution or thawing)