HIGHLIGHTS OF PRESCRIBING INFORMATION
These highlights do not include all the information needed to use Influenza A (H1N1) 2009 Monovalent Vaccine safely and effectively. See full prescribing information for Influenza A (H1N1) 2009 Monovalent Vaccine.

Influenza A (H1N1) 2009 Monovalent Vaccine
Manufactured by CSL Limited
Suspension for Intramuscular Injection
Initial U.S. Approval: 2007

INDICATIONS AND USAGE

Influenza A (H1N1) 2009 Monovalent Vaccine is an inactivated influenza virus vaccine indicated for active immunization of persons 18 years of age and older against influenza disease caused by pandemic (H1N1) 2009 virus. (1)

This indication is based on the immune response elicited by the seasonal trivalent Influenza Virus Vaccine manufactured by CSL (AFLURIA). CSL’s Influenza A (H1N1) 2009 Monovalent Vaccine and AFLURIA are manufactured by the same process. There have been no controlled clinical studies demonstrating a decrease in influenza disease after vaccination with AFLURIA. (14)

DOSAGE AND ADMINISTRATION

Based on currently available information, the vaccination regimen is as follows:

Adults 18 years of age and older:
A single 0.5 mL intramuscular injection. (2)

DOSAGE FORMS AND STRENGTHS

Influenza A (H1N1) 2009 Monovalent Vaccine, a sterile suspension for intramuscular injection, is supplied in two presentations:

- 0.5 mL preservative-free, single-dose, pre-filled syringe. (3, 11)
- 5 mL multi-dose vial containing ten doses. Thimerosal, a mercury derivative, is added as a preservative; each 0.5 mL dose contains 24.5 micrograms (mcg) of mercury. (3, 11)

CONTRAINDICATIONS

- Hypersensitivity to eggs or chicken protein, neomycin, or polymyxin, or life-threatening reaction to previous influenza vaccination. (4, 11)

WARNINGS AND PRECAUTIONS

- If Guillain-Barré Syndrome (GBS) has occurred within 6 weeks of previous influenza vaccination, the decision to give Influenza A (H1N1) 2009 Monovalent Vaccine should be based on careful consideration of the potential benefits and risks. (5.1)
- Immunosuppressed persons may have a diminished immune response to Influenza A (H1N1) 2009 Monovalent Vaccine. (5.2)

ADVERSE REACTIONS

Adverse reactions information is based on studies conducted with seasonal trivalent Influenza Virus Vaccine manufactured by CSL (AFLURIA).

The most common (≥10%) local (injection-site) adverse reactions were tenderness, pain, redness, and swelling. The most common (≥10%) systemic adverse reactions were headache, malaise, and muscle aches. (6.1)

To report SUSPECTED ADVERSE REACTIONS, contact CSL Biotherapies at 1-888-435-8633 or VAERS at 1-800-822-7967 and www.vaers.hhs.gov.

DRUG INTERACTIONS

- Do not mix with any other vaccine in the same syringe or vial. (7.1)
- Immunosuppressive therapies may diminish the immune response to Influenza A (H1N1) 2009 Monovalent Vaccine. (7.2)

USE IN SPECIFIC POPULATIONS

- Safety and effectiveness of Influenza A (H1N1) 2009 Monovalent Vaccine have not been established in pregnant women, nursing mothers or in persons less than 18 years of age. (8.1, 8.3, 8.4)
- Antibody responses to the seasonal trivalent Influenza Virus Vaccine (AFLURIA) were lower in geriatric subjects than in younger subjects. (8.5)

See 17 for PATIENT COUNSELING INFORMATION.

Revised: 09/2009

FULL PRESCRIBING INFORMATION: CONTENTS*

1 INDICATIONS AND USAGE
2 DOSAGE AND ADMINISTRATION
2.1 Prior to Administration
2.2 Administration
3 DOSAGE FORMS AND STRENGTHS
4 CONTRAINDICATIONS
5 WARNINGS AND PRECAUTIONS
5.1 Guillain-Barré Syndrome (GBS)
5.2 Altered Immunocompetence
5.3 Preventing and Managing Allergic Reactions
5.4 Limitations of Vaccine Effectiveness
6 ADVERSE REACTIONS
6.1 Overall Adverse Reactions
6.2 Safety Experience from Clinical Studies
6.3 Postmarketing Experience
6.4 Other Adverse Reactions Associated With Influenza Vaccination
7 DRUG INTERACTIONS
7.1 Concurrent Use With Other Vaccines
7.2 Concurrent Use With Immunosuppressive Therapies
8 USE IN SPECIFIC POPULATIONS
8.1 Pregnancy
8.3 Nursing Mothers
8.4 Pediatric Use
8.5 Geriatric Use
11 DESCRIPTION
12 CLINICAL PHARMACOLOGY
12.1 Mechanism of Action
13 NONCLINICAL TOXICOLOGY
13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
14 CLINICAL STUDIES
15 REFERENCES
16 HOW SUPPLIED/STORAGE AND HANDLING
17 PATIENT COUNSELING INFORMATION

*Sections or subsections omitted from the full prescribing information are not listed.
FULL PRESCRIBING INFORMATION

1 INDICATIONS AND USAGE

Influenza A (H1N1) 2009 Monovalent Vaccine is an inactivated influenza virus vaccine indicated for active immunization of persons ages 18 years of age and older against influenza disease caused by pandemic (H1N1) 2009 virus.

This indication is based on the immune response elicited by the seasonal trivalent Influenza Virus Vaccine manufactured by CSL (AFLURIA®). CSL’s Influenza A (H1N1) 2009 Monovalent Vaccine and AFLURIA are manufactured by the same process. There have been no controlled clinical studies demonstrating a decrease in influenza disease after vaccination with AFLURIA (see Clinical Studies [14]).

2 DOSAGE AND ADMINISTRATION

2.1 Prior to Administration

Influenza A (H1N1) 2009 Monovalent Vaccine syringes and vials should be inspected visually for particulate matter and discoloration prior to administration (see Description [11]), whenever suspension and container permit. If either of these conditions exists, the vaccine should not be administered. Any vaccine that has been frozen or is suspected of being frozen must not be used.

2.2 Administration

When using the preservative-free, single-dose syringe, shake the syringe thoroughly and administer the dose immediately.

When using the multi-dose vial, shake the vial thoroughly before withdrawing each dose, and administer the dose immediately. Between uses, store the vial at 2–8°C (36–46°F) (see How Supplied/Storage and Handling [16]).

Once the stopper has been pierced, the vial must be discarded within 28 days.

Clinical studies are ongoing with Influenza A (H1N1) 2009 Monovalent Vaccine to determine the optimal dosage, number of doses and schedule.

Adults 18 years of age and older should receive a single 0.5 mL intramuscular dose.

The preferred site for intramuscular injection is the deltoid muscle of the upper arm.
3  DOSAGE FORMS AND STRENGTHS

Influenza A (H1N1) 2009 Monovalent Vaccine is a sterile suspension for intramuscular injection (see Description [11]).

Influenza A (H1N1) 2009 Monovalent Vaccine is supplied in two presentations:

- 0.5 mL preservative-free, single-dose, pre-filled syringe.
- 5 mL multi-dose vial containing ten doses. Thimerosal, a mercury derivative, is added as a preservative; each 0.5 mL dose contains 24.5 mcg of mercury.

4  CONTRAINDICATIONS

Influenza A (H1N1) 2009 Monovalent Vaccine is contraindicated in individuals with known hypersensitivity to eggs or chicken protein, neomycin, or polymyxin, or in anyone who has had a life-threatening reaction to previous influenza vaccination.

5  WARNINGS AND PRECAUTIONS

5.1  Guillain-Barré Syndrome (GBS)
If GBS has occurred within 6 weeks of previous influenza vaccination, the decision to give Influenza A (H1N1) 2009 Monovalent Vaccine should be based on careful consideration of the potential benefits and risks.

5.2  Altered Immunocompetence
If Influenza A (H1N1) 2009 Monovalent Vaccine is administered to immunocompromised persons, including those receiving immunosuppressive therapy, the immune response may be diminished.

5.3  Preventing and Managing Allergic Reactions
Appropriate medical treatment and supervision must be available to manage possible anaphylactic reactions following administration of the vaccine.

5.4  Limitations of Vaccine Effectiveness
Vaccination with Influenza A (H1N1) 2009 Monovalent Vaccine may not protect all individuals.
6 ADVERSE REACTIONS

CSL’s Influenza A (H1N1) 2009 Monovalent Vaccine and seasonal trivalent Influenza Virus Vaccine (AFLURIA) are manufactured by the same process. The following sections summarize data obtained from clinical studies and postmarketing experience with AFLURIA.

6.1 Overall Adverse Reactions
Serious allergic reactions, including anaphylactic shock, have been observed during postmarketing surveillance in individuals receiving AFLURIA.

The most common local (injection-site) adverse reactions observed in clinical studies with AFLURIA were tenderness, pain, redness, and swelling. The most common systemic adverse reactions observed were headache, malaise, and muscle aches.

6.2 Safety Experience from Clinical Studies
Because clinical studies are conducted under widely varying conditions, adverse reaction rates observed in the clinical studies of a vaccine cannot be directly compared to rates in the clinical studies of another vaccine and may not reflect the rates observed in clinical practice.

Clinical safety data for AFLURIA have been obtained in two clinical studies (see Clinical Studies [14]).

A US study (Study 1) included 1,357 subjects for safety analysis, ages 18 to less than 65 years, randomized to receive AFLURIA (1,089 subjects) or placebo (268 subjects). There were no deaths or serious adverse events reported in this study.

A UK study (Study 2) included 275 subjects, ages 65 years and older, randomized to receive preservative-free AFLURIA (206 subjects) or a European-licensed trivalent inactivated influenza vaccine as an active control (69 subjects). There were no deaths or serious adverse events reported in this study.

The safety assessment was identical for the two studies. Local (injection-site) and systemic adverse events were solicited by completion of a symptom diary card for 5 days post-vaccination (Table 1). Unsolicited local and systemic adverse events were collected for 21 days post-vaccination (Table 2). These unsolicited adverse events were reported either spontaneously or when subjects were questioned about any changes in their health post-vaccination. All adverse events are presented regardless of any treatment causality assigned by study investigators.
### Table 1: Proportion of Subjects With Solicited Local or Systemic Adverse Events* Within 5 Days After Administration of AFLURIA or Placebo, Irrespective of Causality†

<table>
<thead>
<tr>
<th>Solicited Adverse event</th>
<th>Study 1</th>
<th>Study 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Subjects ≥ 18 to &lt; 65 years</td>
<td>Subjects ≥ 65 years</td>
</tr>
<tr>
<td></td>
<td>AFLURIA‡</td>
<td>Placebo§</td>
</tr>
<tr>
<td></td>
<td>n=1089</td>
<td>n=268</td>
</tr>
<tr>
<td><strong>Local</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tenderness¶</td>
<td>60%</td>
<td>18%</td>
</tr>
<tr>
<td>Pain¶</td>
<td>40%</td>
<td>9%</td>
</tr>
<tr>
<td>Redness</td>
<td>16%</td>
<td>8%</td>
</tr>
<tr>
<td>Swelling</td>
<td>9%</td>
<td>1%</td>
</tr>
<tr>
<td>Bruising</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td><strong>Systemic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Malaise</td>
<td>20%</td>
<td>19%</td>
</tr>
<tr>
<td>Muscle aches</td>
<td>13%</td>
<td>9%</td>
</tr>
<tr>
<td>Nausea</td>
<td>6%</td>
<td>9%</td>
</tr>
<tr>
<td>Chills/ Shivering</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>Fever ≥ 37.7°C (99.86°F)</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Vomiting</td>
<td>1%</td>
<td>1%</td>
</tr>
</tbody>
</table>

* In Study 1, 87% of solicited local and systemic adverse events were mild, 12% were moderate, and 1% were severe. In Study 2, 76.5% were mild, 20.5% were moderate, and 3% were severe. In both studies, most solicited local and systemic adverse events lasted no longer than 2 days.

† Values rounded to the nearest whole percent.

‡ Includes subjects who received either the single-dose (preservative-free) or multi-dose formulation of AFLURIA.

§ Thimerosal-containing placebo.

¶ Tenderness defined as pain on touching.

¶¶ Pain defined as spontaneously painful without touch.
### Table 2: Adverse Events* Reported Spontaneously by ≥ 1% of Subjects Within 21 Days After Administration of AFLURIA or Placebo, Irrespective of Causality†

<table>
<thead>
<tr>
<th>Adverse Event</th>
<th>Study 1 Subjects ≥ 18 to &lt; 65 years</th>
<th>Study 2 Subjects ≥ 65 years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AFLURIA‡ n=1089</td>
<td>AFLURIA n=206</td>
</tr>
<tr>
<td></td>
<td>Placebo§ n=268</td>
<td></td>
</tr>
<tr>
<td>Headache</td>
<td>8%</td>
<td>8%</td>
</tr>
<tr>
<td>Nasal Congestion</td>
<td>1%</td>
<td>7%</td>
</tr>
<tr>
<td>Cough</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>Rhinorrhea</td>
<td>1%</td>
<td>5%</td>
</tr>
<tr>
<td>Pharyngolaryngeal Pain</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Reactogenicity Event</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>Diarrhea</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Back Pain</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Upper Respiratory Tract Infection</td>
<td>2%</td>
<td>0.5%</td>
</tr>
<tr>
<td>Viral Infection</td>
<td>0.4%</td>
<td>0%</td>
</tr>
<tr>
<td>Lower Respiratory Tract Infection</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Myalgia</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Muscle Spasms</td>
<td>0.4%</td>
<td>0%</td>
</tr>
</tbody>
</table>

* In Study 1, 63% of unsolicited adverse events were mild, 35% were moderate, and 2% were severe. In Study 2, 47% were mild, 51% were moderate, and 3% were severe. In both studies, most unsolicited adverse events lasted no longer than 5 days.

† Values greater than 0.5% rounded to the nearest whole percent.

‡ Includes subjects who received either the single-dose (preservative-free) or multi-dose formulation of AFLURIA.

§ Thimerosal-containing placebo.

### 6.3 Postmarketing Experience

Because postmarketing reporting of adverse reactions is voluntary and from a population of uncertain size, it is not always possible to reliably estimate their frequency or establish a causal relationship to vaccine exposure. The adverse reactions described have been included in this section because they: 1) represent reactions that are known to occur following immunizations generally or influenza immunizations specifically; 2) are potentially serious; or 3) have been reported frequently. The following adverse reactions also include those identified during postapproval use of AFLURIA outside the US since 1985.

#### Blood and lymphatic system disorders

- Transient thrombocytopenia

#### Immune system disorders

- Allergic reactions including anaphylactic shock and serum sickness
Nervous system disorders
Neuralgia, paresthesia, and convulsions; encephalopathy, neuritis or neuropathy, transverse myelitis, and GBS

Vascular disorders
Vasculitis with transient renal involvement

Skin and subcutaneous tissue disorders
Pruritus, urticaria, and rash

General disorders and administration site conditions
Influenza-like illness (e.g., pyrexia, chills, headache, malaise, myalgia), injection-site inflammation (e.g., pain, erythema, swelling, warmth), and induration

6.4 Other Adverse Reactions Associated With Influenza Vaccination
Anaphylaxis has been reported after administration of AFLURIA. Although AFLURIA and Influenza A (H1N1) 2009 Monovalent Vaccine contain only a limited quantity of egg protein, this protein can induce immediate hypersensitivity reactions among persons who have severe egg allergy. Allergic reactions include hives, angioedema, allergic asthma, and systemic anaphylaxis (see Contraindications [4]).

The 1976 swine influenza vaccine was associated with an increased frequency of Guillain-Barré Syndrome (GBS). Evidence for a causal relation of GBS with subsequent vaccines prepared from other influenza viruses is unclear. If influenza vaccine does pose a risk, it is probably slightly more than one additional case per 1 million persons vaccinated.

Neurological disorders temporally associated with influenza vaccination, such as encephalopathy, optic neuritis/neuropathy, partial facial paralysis, and brachial plexus neuropathy, have been reported.

Microscopic polyangiitis (vasculitis) has been reported temporally associated with influenza vaccination.

7 DRUG INTERACTIONS
7.1 Concurrent Use With Other Vaccines
There are no data to assess the concomitant administration of Influenza A (H1N1) 2009 Monovalent Vaccine with other vaccines.

If Influenza A (H1N1) 2009 Monovalent Vaccine is to be given at the same time as another injectable vaccine(s), the vaccine(s) should be administered at different injection sites.
7.2 Concurrent Use With Immunosuppressive Therapies
The immunological response to Influenza A (H1N1) 2009 Monovalent Vaccine may be diminished in individuals receiving corticosteroid or immunosuppressive therapies.

8 USE IN SPECIFIC POPULATIONS
CSL’s Influenza A (H1N1) 2009 Monovalent Vaccine and seasonal trivalent Influenza Virus Vaccine (AFLURIA) are manufactured by the same process. Available information for AFLURIA is provided in this section.

8.1 Pregnancy
Pregnancy Category C: Animal reproduction studies have not been conducted with Influenza A (H1N1) 2009 Monovalent Vaccine or AFLURIA. It is also not known whether these vaccines can cause fetal harm when administered to a pregnant woman or can affect reproduction capacity. Influenza A (H1N1) 2009 Monovalent Vaccine should be given to a pregnant woman only if clearly needed.

8.3 Nursing Mothers
Neither Influenza A (H1N1) 2009 Monovalent Vaccine nor AFLURIA has been evaluated in nursing mothers. It is not known whether Influenza A (H1N1) 2009 Monovalent Vaccine or AFLURIA is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Influenza A (H1N1) 2009 Monovalent Vaccine is administered to a nursing woman.

8.4 Pediatric Use
Neither Influenza A (H1N1) 2009 Monovalent Vaccine nor AFLURIA has been evaluated in children. Safety and effectiveness in the pediatric population have not been established.

8.5 Geriatric Use
In four clinical studies, 343 subjects ages 65 years and older received AFLURIA. Hemagglutination-inhibiting (HI) antibody responses in geriatric subjects were lower after administration of AFLURIA in comparison to younger adult subjects (see Clinical Studies [14]).

Adverse event rates were generally similar in frequency to those reported in subjects ages 18 to less than 65 years, although some differences were observed (see Adverse Reactions [6.2]).
11 DESCRIPTION

Influenza A (H1N1) 2009 Monovalent Vaccine, for intramuscular injection, is a sterile, clear, colorless to slightly opalescent suspension with some sediment that resuspends upon shaking to form a homogeneous suspension. Influenza A (H1N1) 2009 Monovalent Vaccine is prepared from influenza virus propagated in the allantoic fluid of embryonated chicken eggs. Following harvest, the virus is purified in a sucrose density gradient using a continuous flow zonal centrifuge. The purified virus is inactivated with beta-propiolactone, and the virus particles are disrupted using sodium taurodeoxycholate to produce a “split virion”. The disrupted virus is further purified and suspended in a phosphate buffered isotonic solution.

Influenza A (H1N1) 2009 Monovalent Vaccine is formulated to contain 15 mcg HA per 0.5 mL dose of influenza A/California/7/2009 (H1N1)v-like virus. The single-dose formulation is preservative-free; thimerosal, a mercury derivative, is not used in the manufacturing process for this formulation. The multi-dose formulation contains thimerosal, added as a preservative; each 0.5 mL dose contains 24.5 mcg of mercury.

A single 0.5 mL dose of Influenza A (H1N1) 2009 Monovalent Vaccine contains sodium chloride (4.1 mg), monobasic sodium phosphate (80 mcg), dibasic sodium phosphate (300 mcg), monobasic potassium phosphate (20 mcg), potassium chloride (20 mcg), and calcium chloride (1.5 mcg). From the manufacturing process, each dose may also contain residual amounts of sodium taurodeoxycholate (≤ 10 ppm), ovalbumin (≤ 1 mcg), neomycin sulfate (≤ 0.2 picograms [pg]), polymyxin B (≤ 0.03 pg), and beta-propiolactone (< 25 nanograms).

The rubber tip cap and plunger used for the preservative-free, single-dose syringes and the rubber stoppers used for the multi-dose vial contain no latex.

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Influenza illness and its complications follow infection with influenza viruses. Global surveillance of influenza identifies yearly antigenic variants. For example, since 1977 antigenic variants of influenza A (H1N1 and H3N2) and influenza B viruses have been in global circulation. Specific levels of HI antibody titers post-vaccination with inactivated influenza virus vaccine have not been correlated with protection from influenza virus. In some human studies, antibody titers of 1:40 or greater have been associated with protection from influenza illness in up to 50% of subjects.1,2

Antibody against one influenza virus type or subtype confers limited or no protection against another. Furthermore, antibody to one antigenic variant of influenza virus might not protect against a new antigenic variant of the same type or subtype. Frequent development of antigenic
variants through antigenic drift is the virologic basis for seasonal epidemics and the reason for
the usual change to one or more new strains in each year’s influenza vaccine.

13 NONCLINICAL TOXICOLOGY

13.1 Carcinogenesis, Mutagenesis, Impairment of Fertility
Neither Influenza A (H1N1) 2009 Monovalent Vaccine nor AFLURIA has been evaluated for
carcinogenic or mutagenic potential or for impairment of fertility.

14 CLINICAL STUDIES

CSL’s Influenza A (H1N1) 2009 Monovalent Vaccine and seasonal trivalent Influenza Virus
Vaccine (AFLURIA) are manufactured by the same process. Data in this section were obtained
in clinical studies conducted with AFLURIA.

Three randomized, controlled clinical studies of AFLURIA have evaluated the immune
responses (specifically, HI antibody titers) to each virus strain in the vaccine. In these studies,
post-vaccination immunogenicity was evaluated on sera obtained 21 days after administration
of AFLURIA. No controlled clinical studies demonstrating a decrease in influenza disease after
vaccination with AFLURIA have been performed.

The US study (Study 1) was a randomized, double-blinded, placebo-controlled, multicenter
study in healthy subjects ages 18 to less than 65 years. A total of 1,357 subjects were
vaccinated (1,089 subjects with AFLURIA and 268 with a thimerosal-containing placebo).
Subjects receiving AFLURIA were vaccinated using either a single-dose (preservative-free) or
multi-dose (one of three lots) formulation. The evaluable efficacy population consisted of 1,341
subjects (1,077 in the AFLURIA group and 264 in the placebo group) with complete serological
data who had not received any contraindicated medications before the post-vaccination
immunogenicity assessment. Among the evaluable efficacy population receiving AFLURIA,
37.5% were men and 62.5% were women. The mean age of the entire evaluable population
receiving AFLURIA was 38 years; 73% were ages 18 to less than 50 years and 27% were ages
50 to less than 65 years. Additionally, 81% of AFLURIA recipients were White, 12% Black,
and 6% Asian.

In Study 1, the following co-primary immunogenicity endpoints were assessed: 1) the lower
bounds of the 2-sided 95% confidence intervals (CI) for the proportion of subjects with HI
antibody titers of 1:40 or greater after vaccination, which should exceed 70% for each vaccine
antigen strain; and 2) the lower bounds of the 2-sided 95% CI for rates of seroconversion
(defined as a 4-fold increase in post-vaccination HI antibody titers from pre-vaccination titers of
1:10 or greater, or an increase in titers from less than 1:10 to 1:40 or greater), which should
exceed 40% for each vaccine antigen strain.
In subjects ages 18 to less than 65 years, serum HI antibody responses to AFLURIA met the pre-specified co-primary endpoint criteria for all three virus strains (Table 3). Clinical lot-to-lot consistency was demonstrated for the single-dose (preservative-free) and multi-dose formulations of AFLURIA, showing that these formulations elicited similar immune responses.

Table 3: Study 1 – Serum HI Antibody Responses in Subjects ≥ 18 to < 65 Years Receiving AFLURIA

<table>
<thead>
<tr>
<th>Treatment Arm</th>
<th>Number Enrolled/Evaluable</th>
<th>Vaccine Strain</th>
<th>Seroconversion Rate* (95% CI)</th>
<th>HI Titer ≥ 1:40† (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All active AFLURIA influenza vaccine formulations‡</td>
<td>1089/1077</td>
<td>H1N1</td>
<td>48.7% (45.6, 51.7)</td>
<td>97.8% (96.7, 98.6)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H3N2</td>
<td>71.5% (68.7, 74.2)</td>
<td>99.9% (99.5, 100.0)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>69.7% (66.9, 72.5)</td>
<td>94.2% (92.7, 95.6)</td>
</tr>
<tr>
<td>Placebo</td>
<td>270/264</td>
<td>H1N1</td>
<td>2.3% (0.8, 4.9)</td>
<td>74.6% (68.9, 79.8)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H3N2</td>
<td>0.0% (N/A)</td>
<td>72.0% (66.1, 77.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>B</td>
<td>0.4% (&lt; 0.1, 2.1)</td>
<td>47.0% (40.8, 53.2)</td>
</tr>
</tbody>
</table>

* Seroconversion rate is defined as a 4-fold increase in post-vaccination HI antibody titer from pre-vaccination titer ≥ 1:10, or an increase in titer from < 1:10 to ≥ 1:40. Lower bound of 95% CI for seroconversion should be > 40% for the study population.

† HI titer ≥ 1:40 is defined as the proportion of subjects with a minimum post-vaccination HI antibody titer of 1:40. Lower bound of 95% CI for HI antibody titer ≥ 1:40 should be > 70% for the study population.

‡ Active formulations include aggregated results for the single-dose (preservative-free) and multi-dose formulations of AFLURIA.

The UK study (Study 2) was a randomized, controlled study that enrolled 275 healthy subjects ages 65 years and older. This study compared AFLURIA with a European-licensed trivalent inactivated influenza vaccine as an active control. The evaluable efficacy population consisted of 274 subjects (206 in the AFLURIA group and 68 in the control group). Among these subjects, 50% were men and 50% were women, with a mean age of 72 years (range: 65 to 93 years).

The co-primary immunogenicity endpoints for the seroconversion rate and the proportion of subjects with a minimum post-vaccination HI antibody titer of 1:40 are presented in Table 4.
Table 4: Study 2 – Serum HI Antibody Responses in Subjects ≥ 65 Years Receiving AFLURIA

<table>
<thead>
<tr>
<th>Number of Subjects</th>
<th>Vaccine Strain</th>
<th>Seroconversion Rate* (95% CI)</th>
<th>HI Titer ≥ 1:40† (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>206</td>
<td>H1N1</td>
<td>34.0% (27.5, 40.9)</td>
<td>85.0% (79.3, 89.5)</td>
</tr>
<tr>
<td></td>
<td>H3N2</td>
<td>44.2% (37.3, 51.2)</td>
<td>99.5% (97.3, 100.0)</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>45.6% (38.7, 52.7)</td>
<td>77.7% (71.4, 83.2)</td>
</tr>
</tbody>
</table>

* Seroconversion rate is defined as a 4-fold increase in post-vaccination HI antibody titer from pre-vaccination titer ≥ 1:10, or an increase in titer from < 1:10 to ≥ 1:40. Lower bound of 95% CI for seroconversion should be > 30% for the study population.

† HI titer ≥ 1:40 is defined as the proportion of subjects with a minimum post-vaccination HI antibody titer of 1:40. Lower bound of 95% CI for HI antibody titer ≥ 1:40 should be > 60% for the study population.

A second UK study (Study 3) was a randomized, controlled study that enrolled 406 healthy subjects ages 18 years and older (stratified by age from 18 to less than 60 years and 60 years and older). This study compared AFLURIA with a European-licensed trivalent inactivated influenza vaccine as an active control. In a post-hoc analysis of different age ranges, among subjects ages 18 to less than 65 years receiving AFLURIA (146 subjects), 47% were men and 53% were women, with a mean age of 48 years for all subjects. Among subjects ages 65 years and older receiving AFLURIA (60 subjects), 53% were men and 47% were women, with a mean age of 71 years.

The post-hoc analysis of serum HI antibody responses showed that the lower bound of the 95% CI for subjects with HI antibody titers of 1:40 or greater after vaccination exceeded 70% for each strain. HI antibody responses were lower in subjects ages 65 years and older after administration of AFLURIA. Serum HI antibody responses to the active control were similar to those for AFLURIA in both age groups.
15 REFERENCES


16 HOW SUPPLIED/STORAGE AND HANDLING

Influenza A (H1N1) 2009 Monovalent Vaccine is supplied as a 0.5 mL preservative-free, single-dose, pre-filled syringe (packaged without needles) and as a 5 mL multi-dose vial containing ten 0.5 mL doses, with thimerosal, a mercury derivative, added as a preservative; each 0.5 mL dose contains 24.5 mcg of mercury.

**Product Description**
- Package of ten 0.5 mL single-dose, preservative-free, prefilled syringes: 33332-519-01
- Package of one 5 mL multi-dose vial; the vial contains ten 0.5 mL doses: 33332-629-10

Store refrigerated at 2–8°C (36–46°F). Do not freeze. Protect from light. Do not use Influenza A (H1N1) 2009 Monovalent Vaccine beyond the expiration date printed on the label.

17 PATIENT COUNSELING INFORMATION

- Inform vaccine recipients that Influenza A (H1N1) 2009 Monovalent Vaccine is an inactivated vaccine that cannot cause influenza but rather stimulates the immune system to produce antibodies.

- Instruct vaccine recipients to report any severe or unusual adverse reactions to their healthcare provider.

- Inform vaccine recipients that there are two influenza vaccine formulations for this influenza season, the monovalent vaccine against influenza disease caused by pandemic (H1N1) 2009 influenza virus and seasonal trivalent influenza vaccine.
Manufactured by:

**CSL Limited**

Parkville, Victoria, 3052, Australia

US License No. 1764

Distributed by:

**CSL Biotherapies Inc.**

King of Prussia, PA 19406 USA

AFLURIA is a registered trademark of CSL Limited.