Size : 220 x 200mm K Folding size : 110X51mm 1P

FPA06AF01

pharmaniaga®

SK bioscience

SKYCellflu®

48mm

8X8mm
아이마크

Trivalent Solution for Injection in Prefilled Syringe 0.5mL and 0.25mL

Influenza vaccine, surface antigen, inactivated, prepared in cell cultures

【Composition】

- **Each 0.5 mL prefilled syringe contains:**

Active ingredients:

Purified inactivated influenza virus surface antigen [A/Michigan/45/2015, NYMC X-275(H1N1)] (In-house) ····· 15μg
Purified inactivated influenza virus surface antigen [A/Singapore/INFIMH-16-0019/2016, IVR-186 (H3N2)] (In-house) ····· 15μg
Purified inactivated influenza virus surface antigen [B/Maryland/15/2016] (In-house) ····· 15μg

Stabilizers:

Magnesium chloride hexahydrate (Ph.Eur.) ····· 0.050mg
Calcium chloride dihydrate (Ph.Eur.) ····· 0.067mg

Excipients: Sodium chloride, Potassium chloride, Potassium dihydrogen phosphate, Disodium phosphate dihydrate
Solvent: Water for injection (Ph.Eur.) ····· q.s.
Supplement: Disposable needle (25G×5/8(0.5×16mm)) (In-house) ····· 1ea

- **Each 0.25 mL prefilled syringe contains:**

Active ingredients:

Purified inactivated influenza virus surface antigen [A/Michigan/45/2015, NYMC X-275(H1N1)] (In-house) ····· 7.5μg
Purified inactivated influenza virus surface antigen [A/Singapore/INFIMH-16-0019/2016, IVR-186 (H3N2)] (In-house) ····· 7.5μg
Purified inactivated influenza virus surface antigen [B/Maryland/15/2016] (In-house) ····· 7.5μg

Stabilizers:

Magnesium chloride hexahydrate (Ph.Eur.) ····· 0.025mg
Calcium chloride dihydrate (Ph.Eur.) ····· 0.033mg

Excipients: Sodium chloride, Potassium chloride, Potassium dihydrogen phosphate, Disodium phosphate dihydrate
Solvent: Water for injection (Ph.Eur.) ····· q.s.
Supplement: Disposable needle (25G×5/8(0.5×16mm)) (In-house) ····· 1ea

【Description】 Clear or slightly opalescent liquid contained within colorless and transparent prefilled syringe.

【Pharmacodynamics】 Seroprotection is generally obtained within 3 weeks. The duration of postvaccinal immunity to homologous strains or to stains closely related to the vaccine strains varies but is usually 6-12 months.

【Indications】 Active immunization for the prevention of influenza disease caused by influenza virus subtypes A and type B contained in the vaccine, for adults and children 6 months of age and older.

【Dosage and administration】

Following dose is administered via intramuscular injection, and same dose is repeated once annually.

Age	Vaccination Status	Dose
Aged 6 months through 35 months of age	Have not been previously vaccinated with influenza vaccine or infected	Two doses of 0.25 mL injection. Note: Second dose should be administered after an interval of at least 4 weeks
	Have been previously vaccinated with influenza vaccine	One dose of 0.25 mL as a single injection
Aged 36 months through 8 years of age	Have not been previously vaccinated with influenza vaccine or infected	Two doses of 0.5 mL injection. Note: Second dose should be administered after an interval of at least 4 weeks
	Have been previously vaccinated with influenza vaccine	One dose of 0.5 mL as a single injection
Aged 9 years and older	Not applicable	One dose of 0.5 mL as a single injection

【Precautions for use】

1. Do not administer SKYCellflu® to the following individuals.

If deemed necessary after a medical interview and visual inspection, examine the subject's health condition further using methods such as auscultation and percussion. Do not administer the vaccine to subjects with following conditions. As an exception, the vaccine may be administered to subjects who are at risk of possible influenza infection and determined to have no likelihood of developing serious disabilities due to the administration of the vaccine.

1) Hypersensitivity reaction to active ingredient and/or any other ingredient (including formalin) in SKYCellflu®
2) Febrile disease or acute infection
3) History of severe hypersensitivity reaction and/or convulsive symptom to previous influenza vaccination
4) History of Guillain-Barre syndrome or other neurological disorder within 6 weeks of previous influenza vaccination
5) Fever
6) Cardiovascular disease, renal disease, or hepatic disease in acute, exacerbation, or active phase
7) Acute respiratory disease or other active infection
8) History of anaphylaxis reaction to any ingredient in SKYCellflu®
9) History of suspected allergic reaction, including systemic rash, to previous vaccination
10) Other medical conditions that are diagnosed to be inappropriate for administration of SKYCellflu® vaccine.

2. Administer SKYCellflu® with caution to the following individuals.

1) Pregnant women or women of child-bearing potential
2) Patients with chronic cardiovascular or respiratory disease or patients with diabetes mellitus may experience significant exacerbation of existing disease upon influenza infection, and thus may receive vaccination with caution, as necessary.
3) As with other intramuscular injection, patients with bleeding disorder such as hemophilia and thrombocytopenia or patients on anticoagulant therapy should not receive SKYCellflu® unless the potential benefit outweighs the risk of administration. If the decision is made to administer SKYCellflu® in such persons, it should be administered with caution to avoid the risk of hematoma formation following injection

3. Adverse reactions

1) Local reaction: adverse reactions including injection site tenderness, pain, erythema/redness, and induration/swelling may occur; these reactions usually disappear instantly.
2) Systemic reaction: systemic reactions including myalgia, fatigue/malaise, headache, diarrhea, and vomiting may occur after vaccination; these reactions usually disappear within 3-4 days.
3) Encephalomyelitis: rarely, acute disseminated encephalomyelitis (ADEM) is reported. Fever, headache, convulsion, motor disorder, cognitive disorder, etc. may occur generally within days to 2 weeks after vaccination. In a case of suspected ADEM, diagnosis with MRI and proper intervention should be instituted.
4) Very rarely, allergic reaction to anaphylaxis may occur.
5) Temporary disorder of systemic and/or local neural network may occur. Sensitivity to stimulus or pain may be abnormal. Vascular, cerebral, or neuronal inflammation (e.g., Guillain-Barre syndrome) resulting in paralysis, neuropathic pain, bleeding, and internal bleeding has been reported.
6) Safety of SKYCellflu® was assessed in a study with 301 pediatric and adolescent subjects 6 months through 18 years of age, and 1,095 adult 19 through 59 years of age and followings were reported for adverse reactions.724 out of 1,396 (51.86%) subjects developed adverse reactions after vaccination. The incidence was 44.85% in pediatric and adolescent subjects 6 months through 18 years of age, 59.10% in adult subjects 19 through 59 years of age, and 31.43% in subjects ≥60 years of age.

① Adverse reactions observed during the 7–day period after SKYCellflu® vaccination are shown below.

		Total (N=1,396)	6 months through 18 years of age (N=301)	19 through 59 years of age (N=885)	≥60 years of age (N=210)
Local reaction	Tenderness	26.36%	7.64%	36.16%	11.90%
	Pain	29.51%	30.56%	32.43%	15.71%
	Erythema/redness	8.31%	15.28%	6.55%	5.71%
	Induration/swelling	3.87%	9.97%	2.37%	1.43%
Systemic reaction	Myalgia	18.48%	9.63%	23.16%	11.43%
	Fatigue/malaise[1]	16.69%	5.32%	21.81%	11.43%
	Headache	10.60%	3.99%	14.24%	4.76%
	Diarrhea	2.22%	-	3.28%	0.95%
	Vomiting	0.43%	-	0.56%	0.48%
	Whining/annoyed	1.36%	6.31%	-	-
	Somnolence/exhausted	1.22%	5.65%	-	-
	Fever	0.50%	2.33%	-	-
	Arthralgia	0.14%	0.66%	-	-

[1]Reported in subjects ≥5 years of age.

② Adverse reactions observed during the 21-day (adults) or 28-day (children and adolescents) period after SKYCellflu® vaccination were reported in 42 out of 1,396 (3.01%) subjects. Adverse reactions related to nervous system and skin and subcutaneous tissue were the most frequently observed, as 10 subjects (0.72%) were reported at each category. Adverse reactions observed during the study period are shown below.
(Uncommon: 0.1 to <5%, Rare: <0.1%)

Category	Frequency	
	Uncommon	Rare
Respiratory system	Nasopharyngitis, cough, wet cough, oropharyngeal pain	Rhinitis, nasal congestion, sneeze, peritonsillar abscess[1], rhinorrhea, sinusitis
Skin and subcutaneous tissue	Pruritus, urticaria	Rash[2]
Nervous system	Headache, dizziness	
Gastrointestinal system	Dyspepsia, nausea	Salivary gland pain
Hepatobiliary system		Hepatic dysfunction
Blood and lymphatic system		Eosinophilia
General disorder and administration site condition	Injection site pruritus	Fatigue, pain, burning sensation, edema

[1]Reported in subjects ≥9 years and ≤18 years of age. [2]Reported in subjects ≥6 months and ≤3 years of age.

③ 13 out of 1,396 subjects developed 17 serious adverse events by 21 days or 28 days after SKYCellflu® vaccination (4 cases of gastroenteritis, 2 cases of acute cholecystitis, 2 cases of asthma, 1 case of bronchitis, 1 case of hand-foot-mouth disease, 1 case of nasopharyngitis, 1 case of tonsillitis, 1 case of inguinal hernia, 1 case of left knee injury, 1 case of right gastrocnemius muscle rupture, 1 case of acute appendicitis, 1 case of lymphadenitis), all of which were concluded to be unrelated to SKYCellflu®. 41 out of 1,396 subjects developed 51 serious adverse events by 6 months after SKYCellflu® vaccination (6 cases of gastroenteritis, 3 cases of influenza, 3 cases of bronchitis, 3 cases of pneumonia, 2 cases of herniated intervertebral disc, 2 cases of acute cholecystitis, 2 cases of pharyngotonsillitis, 2 cases of asthma, 1 case of oral abscess, 1 case of appendicitis, 1 case of nasal septal deviation, 1 case of cervical stenosis, 1 case of intracranial aneurysm, 1 case of hemorrhoid, 1 case of cervical dysplasia, 1 case of endometrial polyp, 1 case of hydronephrosis, 1 case of contusion, 1 case of diffuse axonal injury, 1 case of muscle rupture, 1 case of traffic accident, 1 case of chronic hepatitis, 1 case of lymphadenitis, 1 case of postural vertigo, 1 case of uterine leiomyoma, 1 case of intervertebral disorder, 1 case of cellulitis, 1 case of hand-foot-mouth disease, 1 case of nasopharyngitis, 1 case of pharyngitis, 1 case of tonsillitis, 1 case of tonsil hypertrophy, 1 case of myocarditis, 1 case of inguinal hernia, 1 case of wound, and 1 case of epilepsy), all of which were concluded to be unrelated to SKYCellflu®.

Intramuscular Inj.

4. General precautions

1) Instruction should be provided to the vaccine recipient or caregiver to have a rest on the day of vaccination and next day, to maintain the injection site clean, and to immediately seek medical attention if symptoms such as fever and convulsion develop after vaccination.
2) Antibody response may be insufficient in patients with inherited or iatrogenic immunodeficiency.
3) Influenza vaccine should be administered before influenza outbreaks. Vaccination may be delayed depending on epidemiological situation.
4) Influenza vaccine should be administered annually using new vaccine composed with strains recommended each year.
5) SKYCellflu® can prevent disease caused by influenza virus only, and does not prevent infection caused by other sources which show similar symptoms as influenza.
6) As with other injectable vaccine preparations, appropriate emergency intervention should be prepared for potential anaphylaxis response after administration of the vaccine.
7) Syncope may occur after or even before vaccination as a psychological reaction to injection needle. Appropriate measures should be taken to prevent injury from syncope.

5. Interaction

1) Concurrent immunosuppressive therapy or immunodeficiency may affect immunological response to the vaccine.
2) Co-administration of SKYCellflu® with other vaccine has not been studied. If concomitant vaccination cannot be avoided, injections should be administered on different sites, and the patients should be informed of possible increases in the severity of the adverse effects due to the co-administration
3) False positive response has been reported from the serum test after influenza vaccination which measures antibody against HIV1, HCV, and particularly HTLV1 using ELISA assay (false positivity confirmed with Western Blot technique). Such temporary false positive result is attributed to IgM reaction from vaccination.
4) Immunosuppressive therapy (radiotherapy, anti-metabolic agent, alkylating agent, cytotoxic agent, and supraphysiological doses of corticosteroid) may reduce the immunological response to influenza vaccine.

6. Overdosage

There is no specific information on overdose of SKYCellflu influenza vaccine.

7. Use in pregnant women and nursing mothers

1) Safety of SKYCellflu® has not been evaluated in pregnant women. Direct and/or indirect adverse effect related to reproduction and developmental toxicity was not observed in animal studies. SKYCellflu® should be administered to pregnant women or women of child-bearing potential only if clearly needed.
2) Safety of SKYCellflu® has not been evaluated in breastfeeding women. Since it is not known whether SKYCellflu® is excreted in breast milk, caution should be exercised when SKYCellflu® is administered to a nursing mother. .

8. Instruction for administration

1) Inspect the vaccine visually for any particulate matter or change in physical appearance prior to administration.
2) Before administering a dose of vaccine, shake the vaccine well until colorless or opalescent solution is achieved. Do not use the vaccine in case of any abnormality are observed.
3) Remove the vaccine from the refrigerator and allow reaching room temperature. Shake well to achieve homogenous solution before use (storage condition is 2~ 8°C refrigeration).
4) Upon long-term storage, vaccine may show slight aggregation. This does not indicate abnormal quality, and is easily resuspended by shaking the vaccine.
5) Do not administer SKYCellflu® via intravenous injection.
6) Lateral upper arm is the typical administration site, and should be disinfected with ethanol or iodine tincture before the administration. In addition, it is advised to avoid repeating vaccination at the same site.

9. Incompatibilities

In the absence of compatibility studies, this medicinal product must not be mixed with other medicinal products.

10. Precautions for storage and handling

1) Store SKYCellflu® refrigerated at 2~ 8°C away from light. Do NOT freeze.
2) Do not use the vaccine if the contents have been frozen, because it may cause changes in product quality.

11. Others

Unit and name of the virus strains recommended annually and used for this vaccine production are specified in【Composition】of this package insert.

【Storage】 Keep refrigerated at 2~ 8°C in a hermetic container away from light. Do NOT freeze.
【Expiration date】 As marked separately on the primary container.
【Packaging units】 0.25mL/prefilled syringe or 0.5mL/prefilled syringe. Supplied in pack size of 10.

Product Registration Holder
PHARMANIAGA MARKETING SDN BHD (198401005734)
No. 7, Lorong Keluli 1B, Kawasan Perindustrian Bukit
Raja Selatan, Seksyen 7, 40000 Shah Alam, Selangor

Manufacturer
SK bioscience Co., Ltd.
150, Saneopdanji-gil, Pungsan-eup, Andong-si, Gyeongsangbuk-do, 36618, Rep. of Korea

Authorized on 26 December 2014
Revised on 21 June 2023