

1 NAME OF THE MEDICINAL PRODUCT

VERORAB, powder and solvent for suspension for injection in prefilled syringe Rabies vaccine, inactivated

2 QUALITATIVE AND QUANTITATIVE COMPOSITION

After reconstitution, 1 dose (0.5 mL) contains:

Rabies virus^a, WISTAR Rabies PM/WI38 1503-3M strain (inactivated)..... 3.25 IU ^b

^a Produced in VERO cells

^b Quantity measured according to the ELISA test against the international standard

Excipient with known effect:

Phenylalanine 41 micrograms

For the full list of excipients, see Section 6.1.

Verorab may contain traces of polymyxin B, streptomycin and neomycin, used in the manufacturing process (see section 4.3).

3 PHARMACEUTICAL FORM

Powder and solvent for suspension for injection in prefilled syringe.

Before reconstitution, the powder is uniform white in colour.

The solvent is a clear, colourless solution.

4 CLINICAL PARTICULARS

4.1 Therapeutic Indications

VERORAB is indicated for pre-exposure and post-exposure prophylaxis of rabies in all age groups (see sections 4.2 and 5.1).

Verorab should be used according to official recommendations.

Pre-exposure prophylaxis should be offered to subjects at high risk of contamination by the rabies virus.

All those at permanent risk, such as the personnel of diagnostic, research or production laboratories working on the rabies virus, should be vaccinated.

Vaccination is also recommended for the following categories:

- chiropterologists and people regularly exposed to the bat rabies virus.
- exposed professionals (veterinary personnel, laboratory personnel handling equipment that is contaminated or likely to be contaminated, slaughterhouse butchers, pound personnel, naturalists, taxidermists, gamekeepers, forest rangers, slaughterhouse personnel).
- adults and children living in or travelling to enzootic areas.

4.2 Posology and Method of Administration

Posology

Intramuscular use (IM): the recommended dose is 0.5 mL of reconstituted vaccine.

Intradermal use (ID): the recommended dose is 0.1 mL of reconstituted vaccine per injection site.

Pre-exposure prophylaxis

For pre-exposure immunisation, immunocompetent individuals can be vaccinated according to one of the vaccination schedules presented in table 1 and according to official recommendations.

Table 1: Pre-exposure vaccination schedules

	D0	D7	D21 or D28
Intramuscular use (0.5 mL per dose)			
Conventional regimen IM use – 0.5 mL	1 dose	1 dose	1 dose
1-week regimen ^(a) IM use – 0.5 mL	1 dose	1 dose	
Intradermal use (0.1 mL per dose)			
Conventional regimen ID use – 0.1 mL	1 dose	1 dose	1 dose
1-week regimen ^(a) ID use - 0.1 mL	2 doses ^(b)	2 doses ^(b)	

^(a) This regimen should not be used for immunocompromised individuals (see sub-section "Immunocompromised individuals")

^(b) one injection in each anterolateral thigh (infants and toddlers) or in each arm (children and adults).

Booster doses are determined based on the risk of exposure and on serological tests in accordance with official recommendations.

VERORAB can be administered as a booster injection after primary vaccination with a cell culture rabies vaccine (a rabies vaccine prepared in VERO cells or prepared in human diploid cells (HDCV)).

Post-exposure prophylaxis

Post-exposure prophylaxis includes local non-specific treatment of the wound, vaccination and, where appropriate, passive immunization with rabies immunoglobulins.

Post-exposure prophylaxis should be initiated as soon as possible after suspected exposure to rabies. In all cases, proper wound care (careful washing of all bites and scratches with soap or detergent and copious amounts of water and/or virucidal agents) must be performed immediately or as soon as possible after exposure. It must be performed before administration of vaccine or rabies immunoglobulins, when they

are indicated. Post-exposure prophylaxis should be adjusted to the exposure category, the condition of the animal (see Table 3) and the vaccination status of the patient, in accordance with official recommendations (see Table 2, WHO recommendations).

Post-exposure prophylaxis should be performed as soon as possible after exposure under medical supervision and only at a rabies centre.

If necessary, post-exposure prophylaxis can be supplemented by tetanus prophylaxis and antibiotic therapy to prevent the development of infections other than rabies.

Table 2: WHO Guide for post-exposure prophylaxis depending on severity of exposure (to be adapted according to local official recommendations).

Exposure category	Type of exposure to a domestic or wild animal, suspected or confirmed to be rabid or not available for testing	Post-exposure prophylaxis recommended
I	Touching or feeding of animals. Licks on intact skin (no exposure)	None if reliable case history is available. ^(a)
II	Nibbling of uncovered skin. Minor scratches or abrasions without bleeding (exposure)	Administer vaccine immediately. Discontinue treatment if the animal is in good health after the 10-day observation period ^(b) or if the rabies test performed using appropriate laboratory methods is negative. Treat as category III if bat exposure involved.
III	Single or multiple transdermal bites ^(c) or scratches, licks on broken skin or contamination of mucous membranes with saliva (licks), exposure to bats (severe exposure).	Administer the vaccine immediately and rabies immunoglobulin, preferably as soon as possible after initiation of post-exposure prophylaxis. Rabies immunoglobulins can be injected up to 7 days after the first dose of vaccine is administered. Discontinue treatment if the animal is in good health after the 10-day observation period ^(b) or if the rabies test performed using appropriate laboratory methods is negative.

^(a) If the animal is an apparently healthy dog or cat living in a low-risk area and placed under veterinary observation, treatment may be postponed (see Table 3).

^(b) This observation period only applies to cats and dogs. With the exception of endangered or threatened species, domestic animals and wild animals suspected to have rabies should be euthanised and their tissues examined using appropriate laboratory methods (see Table 3).

^(c) Bites, particularly to the head, neck, face, hands and genitals are classified as Category III exposure due to the extensive innervation of these parts of the body.

Table 3: Course of action after exposure depending on the condition of the animal (WHO recommendations to be adapted according to local recommendations)

Circumstances	Course of action regarding		Comments
	The animal	The patient	
Animal unavailable Suspect or non-suspect circumstances		To be taken to a rabies centre for treatment	Treatment ^(b) is always completed
Dead animal Suspect or non-suspect circumstances	Send the brain to an approved laboratory for analysis	To be taken to a rabies centre for treatment	Treatment ^(b) is discontinued if the tests are negative or, otherwise, continued
Live animal Non-suspect circumstances	Place under veterinary supervision ^(a)	Postpone rabies treatment.	Treatment ^(b) is continued based on veterinary supervision of the animal.
Live animal Suspect circumstances	Place under veterinary supervision ^(a)	To be taken to a rabies centre for treatment	Treatment ^(b) is discontinued if veterinary supervision invalidates initial doubts, or, otherwise, continued

^(a) According to WHO recommendations, the minimum observation period under veterinary supervision for dogs and cats is 10 days.

^(b) Treatment is recommended depending on the severity of exposure: see Table 2.

Post-exposure prophylaxis of non-immunised subjects

Non-immunised subjects may be vaccinated according to one of the vaccination regimens by intramuscular use (IM) or by intradermal use (ID) presented in table 4.

In all cases, refer to the local official recommendations.

Table 4: Post-exposure prophylaxis of non-immunised subjects

	D0	D3	D7	D14	D21	D28
Intramuscular use (0.5 mL per dose)						
IM Essen protocol IM use – 0.5 mL/dose	1 dose	1 dose	1 dose	1 dose	-	1 dose
IM Zagreb protocol IM use – 0.5 mL/dose	2 doses ^(a)	-	1 dose	-	1 dose	-
Intradermal use (0.1 mL per dose)						
New Thailand Red Cross (TRC) ID Regimen ID use – 0.1 mL/dose	2 doses ^(b)	2 doses ^(b)	2 doses ^(b)	-	-	2 doses ^(b)
Institute Pasteur of Cambodia (IPC) ID regimen ID use – 0.1 mL/dose	2 doses ^(b)	2 doses ^(b)	2 doses ^(b)	-	-	-
4-site 1-week ID regimen ID use – 0.1 mL/dose	4 doses ^(c)	4 doses ^(c)	4 doses ^(c)	-	-	-

^(a) one IM injection in the anterolateral region of each thigh (in infants and young children) or in each deltoid (in older children and adults).

^(b) to be injected in 2 separate sites, contralateral if possible.

^(c) to be injected in 4 separate sites.

Whatever the regimen used, vaccination must not be discontinued unless the contact animal is declared free from rabies after veterinary supervision (see Table 3).

Rabies immunoglobulins should be administered concomitantly with the vaccine, in case of category III exposure (WHO classification, see Table 2). If possible, the vaccine should be administered contralaterally to the immunoglobulin administration sites.

Refer to the Summary of Characteristics of the rabies immunoglobulins used.

Post-exposure prophylaxis for already immunised subjects

In accordance with official recommendations, this applies to subjects who have already received pre exposure prophylaxis or post-exposure prophylaxis or who discontinued post-exposure prophylaxis after receiving at least two doses of vaccine prepared in cell culture.

Subjects who have already been immunised must receive 1 dose of vaccine (0.5 mL intramuscularly or 0.1 mL intradermally) on D0 and 1 dose on D3.

Alternatively, 4 intradermal injections of 0.1 mL may be administered in 4 separate sites on D0.

Rabies immunoglobulins are not indicated in this case.

Immunocompromised subjects

• Pre-exposure prophylaxis

In immunocompromised subjects, antibodies conventional three-dose regimens should be used (see table 1) and blood tests for neutralising antibodies should be performed 2 to 4 weeks following the last dose of the vaccine to assess the possible need for an additional dose of the vaccine.

• Post-exposure prophylaxis

In immunocompromised subjects, a complete vaccine regimen should be administered (see table 4) . Rabies immunoglobulins should be administered concomitantly with the vaccine in the event of any category II or III exposure (see table 2).

Paediatric population

Children should receive the same dose as adults (0.5 mL intramuscularly or 0.1 mL intradermally).

Method of administration

• Intramuscular use (IM)

The vaccine is administered via the intramuscular route, in the anterolateral region of the thigh muscle in infants and young children and in the deltoid muscle in older children and adults.

• Intradermal use (ID)

The vaccine should ideally be administered in the upper arm or the forearm.

Do not inject in the buttocks region.

Do not inject via the intravascular route.

Precautions to be taken before handling or administering the medicinal product.

For instructions on reconstitution of the medicinal product before administration, see section 6.6.

4.3 Contraindications

Pre-exposure prophylaxis

Hypersensitivity to the active substance(s) or to any of the excipients listed in section 6.1, to polymyxin B, to streptomycin, to neomycin or to any antibiotic of the same class to a previous administration or to any vaccine containing the same components.

Vaccination should be postponed in case of febrile or acute diseases.

Post-exposure prophylaxis

Given the always-fatal outcome of the declared rabies infection, there are no contraindications to post-exposure vaccination.

4.4 Special Warnings and Precautions for Use

Traceability

In order to improve the traceability of biological medicinal products, the name and batch number of the administered product should be clearly recorded.

Special warnings

As with all vaccines, VERORAB may not protect 100% of vaccinated individuals.

Use with caution in people with known allergies to polymyxin B, to streptomycin, to neomycin (present as traces in the vaccine) or to any antibiotic of the same class.

Precautions for use

Injection-schedule recommendations should be followed scrupulously.

The need for serological tests (to assess seroconversion in subjects)) should be determined in accordance with official recommendations.

When the vaccine is administered to subjects with known immunodeficiency due to an immunosuppressive disease or a concomitant immunosuppressive treatment (including corticosteroids), blood tests must be performed 2 to 4 weeks after vaccination to ensure that a protective immunising response was obtained. In the case of post-exposure vaccination, a complete vaccination regimen must be administered. Rabies immunoglobulins should also be administered concomitantly with the vaccine in the event of any category II or III exposure (see section 4.2).

Do not inject via the intravascular route: make sure the needle does not penetrate a blood vessel.

As with all injectable vaccines, appropriate medical treatment and supervision must be readily available in case of a rare anaphylactic reaction after vaccine administration, particularly in case of post-exposure in subjects with a known hypersensitivity to polymyxin B, to streptomycin, to neomycin or to

any antibiotic of the same class.

As with all injectable vaccines, VERORAB should be administered with caution in subjects with thrombocytopenia or coagulation disorders as intramuscular injection may induce bleeding in these subjects.

Anxiety-related reactions, including vasovagal reactions (syncope), hyperventilation or stress-related reactions can occur following, or even before, any vaccination as a psychogenic response to the needle injection. This can be accompanied by several neurological signs such as transient visual disturbance and paraesthesia. It is important that procedures are in place to avoid injury from faints.

Verorab contains phenylalanine, potassium and sodium

Verorab contains 41 micrograms phenylalanine per 0.5 mL dose which is equivalent to 0.68 microgram/kg for a 60 kg person. Phenylalanine may be harmful for people with phenylketonuria (PKU), a rare genetic disorder in which phenylalanine builds up because the body cannot remove it properly.

Verorab contains less than 1 mmol of potassium (39 mg) and less than 1 mmol of sodium (23 mg) per dose, that is to say essentially 'potassium-free' and 'sodium-free'.

Paediatric population

The potential risk of apnoea with the need for respiratory monitoring for 48-72 h must be carefully taken into account when administering the primary vaccination doses in very premature infants (born at 28 weeks' gestation or less) and particularly in those with a history of respiratory immaturity.

Latex

The tip caps of the pre-filled syringes without needle contain a natural rubber latex derivative, which may cause allergic reactions in latex sensitive individuals.

4.5 Interaction with other medicinal products and other forms of interaction

Immunosuppressive treatments, including long-term systemic corticosteroid therapy, may interfere with the production of antibodies and lead to vaccination failure. It is therefore recommended to perform a serological test 2 to 4 weeks after the last injection (see section 4.2).

Verorab may be administered concomitantly with a Vi polysaccharide typhoid vaccine during the same vaccination visit, using two different injection sites.

Rabies immunoglobulins or any other product and the rabies vaccine must never be combined in the same syringe or injected into the same site (see section 6.2).

Given that rabies immunoglobulins interfere with the development of the immune response to the rabies vaccine, the recommendations for administration of rabies immunoglobulins should be strictly followed.

4.6 Fertility, pregnancy and lactation

Pregnancy

One animal toxicity study on reproduction and development led with another inactivated rabies vaccine produced in VERO cells, did not evidence any deleterious effect on female fertility and on pre-and post-natal development.

Clinical use of rabies vaccines (inactivated “WISTAR Rabies PM/WI38 1503-3M strain”) during a limited number of pregnancies did not show any malformative or fetotoxic effects to date.

Pre-exposure prophylaxis

Given the seriousness of the disease, in case of high risk of contamination, vaccination should be performed during pregnancy, in compliance with the usual vaccination schedule.

Post-exposure prophylaxis

Given the seriousness of the disease, pregnancy is not a contraindication.

Lactation

This vaccine can be used during lactation.

Fertility

Verorab has not been evaluated in fertility studies.

4.7 Effects on ability to drive and use machines

Post-vaccination dizziness was frequently reported (see Section 4.8). It can temporarily affect the ability to drive or use machines.

4.8 Undesirable effects

Summary of the safety profile

Over 13,000 subjects, including approximately 1,000 children and adolescents under the age of 18, have received at least one dose of Verorab in clinical studies.

A combined analysis was performed on 3 randomised, controlled clinical studies with the same safety standards collecting data from 1001 subjects (17 infants/young children aged less than 24 months, 438 children and adolescents and 546 adults aged 18 to 60 years). In two studies, the vaccine was administered intramuscularly (n = 402). In the third study (n = 599), the subjects received the vaccine intradermally, and most of them received equine rabies immunoglobulins (ERIG) concomitantly with the first dose of Verorab.

Adverse reactions were generally moderate in intensity and occurred within 3 days of vaccination. Most reactions resolved spontaneously within 1 to 3 days of their onset.

The most common adverse effects, in all age groups (except in infants/young children aged under

24 months) were headache, malaise, myalgia and pain at the injection site. Injection site reactions (pain, erythema and swelling) were more common after an ID injection than an IM injection. Pain was the most common injection site reaction for both administration routes.

Tabulated list of adverse reactions

The adverse reactions listed below were reported during clinical studies and worldwide post-marketing surveillance. Within each system organ class, adverse reactions are ranked under headings of frequency using the following convention:

- Very common: ($\geq 1/10$);
- Common: ($\geq 1/100$ and $< 1/10$);
- Uncommon: ($\geq 1/1,000$ and $< 1/100$);
- Rare: ($\geq 1/10,000$ and $< 1/1,000$);
- Very rare: ($< 1/10,000$);
- Not known (cannot be estimated from the available data).

Adverse reactions	Adults ≥ 18 years	Paediatric population under 18 years old
	Frequency	Frequency
Blood and lymphatic system disorders		
Lymphadenopathy	Common	Common
Immune system disorders		
Allergic reactions (e.g., rash, urticaria, pruritus)	Uncommon	Uncommon
Anaphylactic reactions and angioedema	Not known	Not known
Metabolism and nutrition disorders		
Decreased appetite	Uncommon	Uncommon
Nervous system disorders		
Headache	Very common	Very common
Dizziness/vertigo	Uncommon	-
Irritability (in infants/young children)	-	Very common
Somnolence (in infants/young children)	-	Very common
Insomnia (in infants/young children)	-	Common
Ear and labyrinth disorders		
Sudden hearing loss, which may persist	Not known	Not known
Respiratory, thoracic and mediastinal disorders		
Dyspnoea	Rare	-
Gastrointestinal disorders		
Nausea	Uncommon	-
Abdominal pain	Uncommon	Uncommon
Diarrhoea	Uncommon	-
Vomiting	-	Uncommon
Musculoskeletal and connective tissue disorders		
Myalgia	Very common	Very common
Arthralgia	Uncommon	-
General disorders and administration site conditions		
Injection site pain (IM use)	Very common	Very common
Injection site pain (ID use)	Very common	Very common
Injection site erythema (IM use)	Common	Common
Injection site erythema (ID use)	Very common	Very common
Injection site pruritus (IM use)	Common	-

Injection site pruritus (ID use)	Common	Uncommon
Injection site swelling (IM use)	Common	Common
Injection site swelling (ID use)	Common	Very common
Injection site induration (IM use)	Common	-
Injection site hematoma (ID use)	Uncommon	
Malaise	Very common	Very common
Influenza-like syndrome	Common	
Fever	Common	Common
Asthenia	Uncommon	-
Chills	Uncommon	Uncommon
Inconsolable crying (in infants/young children)	-	Very common

Reporting of suspected adverse reactions

Reporting suspected adverse reactions after authorization of the medicinal product is important. It allows continued monitoring of the benefit/risk balance of the medicinal product. Healthcare professionals are asked to report any suspected adverse reactions via the national reporting system.

4.9. Overdose

No cases of overdose were reported.

5. PHARMACOLOGICAL PROPERTIES

5.1 Pharmacodynamic properties

Pharmacotherapeutic group: Rabies vaccines, ATC Code: J07BG01.

Mechanism of action

Protection after vaccination is provided by the induction of anti-rabies neutralising antibodies.

Clinical studies have been conducted to assess the immunogenicity of the vaccine in post-exposure and pre-exposure prophylaxis. Rabies virus neutralising antibody levels of ≥ 0.5 IU/mL are considered to be protective by the WHO.

Pre-exposure prophylaxis

In clinical trials assessing a 3-dose vaccine (D0, D7, D28 (or D21) by IM route) in both adults and children, all subjects achieved an adequate immune response, with serum neutralising antibody titres ≥ 0.5 IU/mL by D14 after the end of the primary vaccine regimen.

A ten-year follow-up in 49 patients who received a 3-dose regimen (D0, D7 and D28) followed by a booster dose at 1 year demonstrated a persistent immune response, with neutralising antibody titres maintained for 10 years in 96.9% of vaccinated subjects.

The 1-week pre-exposure schedule by IM use (one 0.5 mL dose at D0 and one 0.5 mL dose at D7) was assessed in one study (VAJ00001) in 75 subjects (including 35 children aged 2 to 17 years). At D21, 98.6% vaccinated subjects reached a serum antibody titre ≥ 0.5 IU/mL.

One year later, following a simulated post-exposure prophylaxis (PEP) with two 0.5 mL doses injected 3 days apart (at D0 and D3) by IM use, a high and rapid anamnestic response was demonstrated in all subjects from D7 (7 days after the 1st PEP dose).

In 5 other additional studies conducted with Verorab in a total of 392 subjects assessing the conventional three-dose regimen (at D0, D7, D21 or D28) by IM use, all subjects reached a serum antibody titre ≥ 0.5 IU/mL. After the two doses (at D0 and D7), just before the third dose at D21 or D28.

The 1-week pre-exposure schedule by intradermal use (two 0.1 mL doses at D0 and two 0.1 mL doses at D7) was assessed in one study in 75 subjects (including 36 children aged 2 to 17 years).

At D21, 97.2% subjects reached a serum antibody titre ≥ 0.5 IU/mL.

One year later, following a simulated PEP with two 0.1 mL doses injected 3 days apart (at D0 and D3) by ID use, a high and rapid anamnestic response was demonstrated in all subjects from D7. Except one subject who remained seronegative at every time points despite completing all study vaccinations.

In another additional study conducted in 430 subjects who received one 0.1 mL dose of Verorab at D0 and one 0.1 mL dose at D7 by ID use, 99.1% subjects reached a serum antibody titre ≥ 0.5 IU/mL at D21.

Post-exposure prophylaxis

In clinical trials assessing the 5-dose Essen regimen (D0, D3, D7, D14 and D28) and the 4- dose Zagreb regimen (2 doses on D0, then 1 dose on D7 and 1 dose on D21) in both children and adults. Verorab elicited neutralising antibody titres ≥ 0.5 IU/mL in almost all vaccinated subjects by D14 and in all subjects by D28.

PEP regimens were tested: 1 regimen in 4 sites in 1 week (4 doses on D0, 4 doses on D3 and 4 doses on D7) with or without equine rabies immunoglobulins (ERIG) on D0, and the new Thailand Red Cross regimen (2 doses on D0, 2 doses on D3, 2 doses on D7 and 2 doses on D28) with equine rabies immunoglobulins (ERIG) on D0. The Institute Pasteur of Cambodia (IPC) regimen (2 doses on D0, D3 and D7) was also included in the Thailand Red Cross regimen up to D28. Almost all vaccinated subjects (98.8%) reached rabies neutralising antibody levels ≥ 0.5 IU/mL by D14. Five years later and before the simulated PPE was received, the protective level of rabies neutralising antibodies was maintained in more than 84% of subjects who received a 4-site 1-week regimen with or without ERIG, and in 64.1% (95% CI: 55.1; 72.3) of subjects who received the new Thailand Red Cross regimen with ERIG. Eleven days after the simulated PPE with a 4-dose ID regimen performed in one visit, all the vaccinated subjects reached rabies neutralising antibody levels ≥ 0.5 IU/mL on D14 (geometric mean antibody titre [GMT] between 138 and 193 IU/mL).

The administration of human rabies immunoglobulin (HRIG) or equine rabies immunoglobulin (ERIG) concomitantly with the rabies vaccine may cause slightly lower mean neutralising antibody titres due to immune interference.

The efficacy of Verorab was assessed in 44 adult subjects bitten by animals with rabies in a phase-4 clinical trial. The subjects received the vaccine according to the 5-dose Essen regimen (D0, D3, D7, D14 and D28 by IM use) and immunoglobulins, if applicable. All subjects were alive 3 years after the post-exposure prophylaxis.

Paediatric population

There are no clinically significant differences in the immunogenicity of the vaccine in the paediatric population compared to adults.

In the study (VAJ00001) assessing the 1-week pre-exposure schedule by intradermal use (two 0.1 mL doses of Verorab at D0 and two 0.1 mL doses at D7) or by IM use (one 0.5 mL dose of Verorab at D0 and one 0.5 mL dose at D7) in 71 children aged 2 to 17 years, all children reached a serum antibody titre ≥ 0.5 IU/mL at D21.

One year later, following a simulated PEP with two doses injected 3 days apart (at D0 and D3) by IM or ID use, a high and rapid anamnestic response was demonstrated in all subjects from D7.

5.2 Pharmacokinetic properties

No pharmacokinetic studies were performed.

5.3 Preclinical safety data

Toxicity studies in animals (acute, subacute and chronic toxicity) do not indicate any toxic effects or target organ toxicity.

6. PHARMACEUTICAL PARTICULARS

6.1 List of excipients

Powder*:

Maltose

20% human albumin solution

Basal Medium Eagle: mixture of mineral salts (including potassium), vitamins, dextrose and amino acids (including L-phenylalanine).

Hydrochloric acid and sodium hydroxide for pH adjustment.

Water for injections

* Composition of the powder before the freeze-drying step.

Solvent:

Sodium chloride

Water for injections

6.2 Incompatibilities

Rabies immunoglobulins or any other product and the rabies vaccine must never be combined in the same syringe or injected into the same site.

6.3 Shelf life

Please refer to the outer carton for shelf-life information.

After the first opening / reconstitution:

For intramuscular use: the product must be used immediately.

For intradermal use, the physical-chemical stability after reconstitution was shown to last for 6 hours at 25°C protected from light. From a microbiological perspective, the product must be used immediately. In case of non-immediate use, the duration and conditions of storage and use (see section 6.6) are the responsibility of the user.

6.4 Special precautions for storage

Store in a refrigerator (2°C - 8°C). Do not freeze.

Store in the original outer package, protected from light.

For storage conditions after reconstitution of the medicinal product, see section 6.3.

6.5 Nature and contents of container

Powder in vial (Type 1 glass) with a stopper (chlorobutyl) and a cap + 0.5 mL of solvent in prefilled syringe (Type I glass) with a plunger-stopper chlorobutyl or bromobutyl) – Box of 1 or 10.

Not all pack sizes may be marketed.

6.6 Special precautions for disposal and other handling

Handling instructions:

- Remove the cap of the vial of lyophilized powder.
- Screw the plunger rod into the syringe, if provided separately.
- Inject the solvent into the vial of lyophilized powder.
- Shake the vial gently until homogeneous suspension of the powder is obtained.
- The reconstituted vaccine should be limpid, homogeneous and free from particles.
- Remove and discard the syringe that was used for vaccine reconstitution.
- Use a new syringe with a new needle to withdraw the reconstituted vaccine.
- Replace the needle used to withdraw the vaccine with a new needle for intramuscular or intradermal injection.
- The length of the needle used for vaccine administration should be adapted to the patient.

If Verorab is administered intramuscularly, the vaccine must be used immediately after reconstitution.

If Verorab is administered intradermally, the vaccine may be used up to 6 hours after reconstitution on the condition that is stored at a temperature not exceeding 25°C and protected from light. After reconstitution with 0.5 mL of solvent, using aseptic techniques, a 0.1 mL vaccine dose must be taken from the vial. The rest may be used for another patient. Before each withdrawal, shake the vial gently to obtain a homogenous

suspension. A new sterile needle and a new sterile syringe must be used to withdraw and administer each vaccine dose to each patient to avoid cross-infection. The unused reconstituted vaccine must be thrown away after 6 hours.

Any unused medicinal product or waste material should be disposed of in accordance with local requirements.

7 PRODUCT REGISTRATION HOLDER

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