

REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H5N1 subtype*

Strain: *A/mallard/Italy/3401/05, Eurasian lineage*

Pathotype: LPAI

Matrix: Allantoic fluid

Culture system: SPF embryonated chicken eggs

No. passages: 3

Batch: 2/20

Manufacturing date: 10/20

Expiry date: 03/26
The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Viability: Inactivated

Inactivation: Beta propiolactone treatment

Titer: $1:256 \pm 1 \log_2$

Analytical method: Haemagglutination (HA) test

Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$

Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

Safety note: Standard Laboratory Procedures should be followed when handling the material

For *in vitro* use only

Date

Head of the Laboratory

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REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H5N3 subtype*
Strain: *A/duck/Italy/775/04, Eurasian lineage*

Pathotype: LPAI
Matrix: Allantoic fluid
Culture system: SPF embryonated chicken eggs
No. passages: 3

Batch: 4/15
Manufacturing date: 11/15
Expiry date: 05/26
The product is stable under recommended storage and handling conditions

Format: Lyophilized
Quantity: ≤ 1 g
Viability: Inactivated
Inactivation: Beta propiolactone treatment

Titer: $1:128 \pm 1 \log_2$
Analytical method: Haemagglutination (HA) test
Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test
Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$
Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product
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REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H5N8 subtype*

Strain: *A/turkey/Italy/7898/2014, Eurasian lineage, clade 2.3.4.4c*

Pathotype: HPAI

Matrix: Allantoic fluid

Culture system: SPF embryonated chicken eggs

No. passages: 3

Batch: 1/22

Manufacturing date: 02/22

Expiry date: 03/27
The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Viability: Inactivated

Inactivation: Beta propiolactone treatment

Titer: $1:128 \pm 1 \log_2$

Analytical method: Haemagglutination (HA) test

Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$

Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

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REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H7N1 subtype*

Strain: *A/turkey/Italy/1067/99, Eurasian lineage*

Pathotype: *LPAI*

Matrix: *Allantoic fluid*

Culture system: *SPF embryonated chicken eggs*

No. passages: *3*

Batch: *2/22*

Manufacturing date: *03/22*

Expiry date: *07/27*
The product is stable under recommended storage and handling conditions

Format: *Lyophilized*

Quantity: *≤ 1 g*

Viability: *Inactivated*

Inactivation: *Beta propiolactone treatment*

Titer: *1:128 ± 1 log₂*

Analytical method: *Haemagglutination (HA) test*

Intended use: *Haemagglutination Inhibition (HI) test*

Storage: *Lyophilized: ≤ + 8°C; Reconstituted: ≤ - 70°C*

Handling and recommendations: *Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product*

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REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H7N7 subtype*

Strain: *A/macaw/England/626/80, Eurasian lineage*

Pathotype: LPAI

Matrix: Allantoic fluid

Culture system: SPF embryonated chicken eggs

No. passages: 3

Batch: 7/22

Manufacturing date: 12/22

Expiry date: 03/33
The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Viability: Inactivated

Inactivation: Beta propiolactone treatment

Titer: $1:128 \pm 1 \log_2$

Analytical method: Haemagglutination (HA) test

Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$

Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

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REFERENCE MATERIAL CERTIFICATE

Name: *Alphainfluenzavirus, Influenza A virus, H9N2 subtype*

Strain: *A/mallard/Italy/3817-34/05*

Pathotype: LPAI

Matrix: Allantoic fluid

Culture system: SPF embryonated chicken eggs

No. passages: 3

Batch: 2/21

Manufacturing date: 09/21

Expiry date: 02/27

The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Viability: Inactivated

Inactivation: Beta propiolactone treatment

Titer: $1:256 \pm 1 \log_2$

Analytical method: Haemagglutination (HA) test

Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$

**Handling and
recommendations:**

Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

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REFERENCE MATERIAL CERTIFICATE

Name: Orthoavulavirus javaense, APMV-1/dove/Italy/4400/2000
Strain: APMV-1/dove/Italy/4400/2000, genotype VI.1 (Dimitrov et al., 2019)

Pathotype: Mesogenic
Matrix: Allantoic fluid
Culture system: SPF embryonated chicken eggs
No. passages: Numero convenzionale (credo sia 3) se non si conosce il dato

Batch: 2/13
Manufacturing date: 02/13
Expiry date: 01/33
The product is stable under recommended storage and handling conditions

Format: Lyophilized
Quantity: ≤ 1 g
Viability: Inactivated
Inactivation: Beta propiolactone treatment

Titer: $1:256 \pm 1 \log_2$
Analytical method: Haemagglutination (HA) test
Identification method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test
Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 70^\circ\text{C}$
Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product
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REFERENCE MATERIAL CERTIFICATE

Name:	Polyclonal anti-Orthoavulavirus javaense serum
Immunogen:	Newcastle disease virus vaccine, Ulster 2C, genotype I.2 (Dimitrov et al., 2019), Lentogenic (inactivated virus)
Source:	SPF chickens
Batch:	1/17
Manufacturing date:	01/17
Expiry date:	10/26 The product is stable under recommended storage and handling conditions
Format:	Lyophilized
Quantity:	≤ 1 g
Inactivation:	Untreated
Titer:	1:256 ±1 log ₂
Analytical method:	Haemagglutination Inhibition (HI) test
Intended use:	Haemagglutination Inhibition (HI) test, Agar Gel Immunodiffusion (AGID), ELISA, serum neutralisation test
Storage:	Lyophilized: ≤ + 8°C; Reconstituted: ≤ - 18°C
Handling and recommendations:	Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product
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REFERENCE MATERIAL CERTIFICATE

Name: Polyclonal anti-*Alphainfluenzavirus* serum

Immunogen: A/turkey/Italy/7898/2014, H5N8 subtype, Eurasian lineage, clade 2.3.4.4c, HPAI (inactivated virus)

Source: SPF chickens

Batch: 1/18

Manufacturing date: 10/18

Expiry date: 03/27
The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Inactivation: Untreated

Titer: $1:256 \pm 1 \log_2$

Analytical method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test, Agar Gel Immunodiffusion (AGID), ELISA, serum neutralisation test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 18^\circ\text{C}$

Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

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REFERENCE MATERIAL CERTIFICATE

Name:	Polyclonal anti- <i>Alphainfluenzavirus</i> serum
Immunogen:	A/turkey/Italy/1067/99, H7N1 subtype, Eurasian lineage, LPAI (inactivated virus)
Source:	SPF chickens
Batch:	1/19
Manufacturing date:	08/19
Expiry date:	04/26 The product is stable under recommended storage and handling conditions
Format:	Lyophilized
Quantity:	≤ 1 g
Inactivation:	Untreated
Titer:	1:512 ± 1 log ₂
Analytical method:	Haemagglutination Inhibition (HI) test
Intended use:	Haemagglutination Inhibition (HI) test, Agar Gel Immunodiffusion (AGID), ELISA, serum neutralisation test
Storage:	Lyophilized: ≤ + 8°C; Reconstituted: ≤ - 18°C
Handling and recommendations:	Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product
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REFERENCE MATERIAL CERTIFICATE

Name: Polyclonal anti-*Alphainfluenzavirus* serum

Immunogen: A/mallard/Italy/3817-34/05, H9N2 subtype, LPAI (inactivated virus)

Source: SPF chickens

Batch: 2/12

Manufacturing date: 04/12

Expiry date: 03/27
The product is stable under recommended storage and handling conditions

Format: Lyophilized

Quantity: ≤ 1 g

Inactivation: Untreated

Titer: $1:512 \pm 1 \log_2$

Analytical method: Haemagglutination Inhibition (HI) test

Intended use: Haemagglutination Inhibition (HI) test, Agar Gel Immunodiffusion (AGID), ELISA, serum neutralisation test

Storage: Lyophilized: $\leq + 8^\circ\text{C}$; Reconstituted: $\leq - 18^\circ\text{C}$

Handling and recommendations: Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product

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REFERENCE MATERIAL CERTIFICATE

Name:	Chicken serum
Immunogen:	None
Source:	SPF chickens
Batch:	5/19
Manufacturing date:	0719
Expiry date:	03/26 The product is stable under recommended storage and handling conditions
Format:	Lyophilized
Quantity:	≤ 1 g
Inactivation:	Untreated
Titer:	Undetectable
Analytical method:	Haemagglutination Inhibition (HI) test
Intended use:	Haemagglutination Inhibition (HI) test, Agar Gel Immunodiffusion (AGID), ELISA, serum neutralisation test
Storage:	Lyophilized: ≤ + 8°C; Reconstituted: ≤ - 18°C
Handling and recommendations:	Lyophilized content of the vial should be reconstituted with 1 mL distilled water to its initial concentration shortly before use. Material should be re-hydrated for 30 mins with gentle mixing prior processing. Once reconstituted, the product should be stored frozen in small aliquots that can be thawed individually on day of use. It is recommended to avoid frequent freeze-thaw cycles that may alter the properties of the product
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