



FILTER TECHNOLOGY

FLAME BEADS

VIRAL DNA/RNA EXTRACTION KIT

INSTRUCTION FOR USE



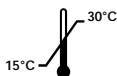
For in vitro diagnostic use



FLB0001 - FLB0002 - FLB0003



GVS SPA, Via Roma 50
Zola Predosa, 40069, Italy



Store at 15-30°C



Rev. 01-25/02/2021

About us

The GVS Group is one of the world's leading manufacturers of filters and components for applications in the Healthcare, Life Sciences, Automotive, Appliance, Safety, and Commercial & Industrial Filtration.

The Group's clear strategy towards internationalization, has led to the opening of 12 production facilities located in Italy, UK, Brazil, the United States, China and Romania, as well as offices in Russia, Turkey, Argentina, Japan, Korea. GVS currently have a workforce of over 2,700 people globally.

For 40 years, GVS has focused on innovation in its products range and production processes, constantly improving its development capacity to provide the best service and support for its clients

We offer a full range of branded products through a global network of dealers and distributors. We also make available all these capabilities on an OEM basis by working closely with companies around the world to provide state of the art materials solutions and/or turn-key final product solutions used in critical applications for the pharmaceutical, medical device, diagnostic, food & beverage and environmental monitoring markets.

Table of contents

1. General Information	3
2. Components and other materials required	5
3. Before Starting	7
4. Sample preparation	9
5. Protocol for the isolation of Viral RNA/DNA from cell-free samples (manual procedure)	10
6. Automatic Extraction on KingFisher™ Flex	11
7. Automatic extraction on Auto-Pure96 (Allsheng)	12
8. Automatic extraction on Tecan Freedom Evo®	14
9. Troubleshooting	15
10. Warning and Precautions	16
11. Simboli, Symbols, Symboles, Símbolos, Símbolos, Symbole, Συμβολα, Symbolit, Symboler	17
12. Ordering information	18

1. General Information

1.1 DESCRIPTION

FLAME BEADS Viral DNA/RNA Extraction Kit provides a rapid and efficient purification method to isolate high-quality viral RNA from cell-free biological fluids such as serum, plasma, urine, cell free body fluids, cell culture supernatants, and rinse liquid from swabs samples.

The procedure can be used for the isolation of viral DNA/RNA from a broad range of viruses. However, performance cannot be guaranteed for every virus species and must be validated by the customer. The amount of purified viral DNA/RNA depends on the sample type, the virus titer, sample source, transport, storage, and age. FLAME BEADS Viral DNA/RNA Extraction kit can be used on common liquid handling instruments or automated magnetic separators. The actual procedure time depends on the configuration of the instrument, and the magnetic separation system used.

1.2 INTENDED USE

FLAME BEADS Viral DNA/RNA Extraction Kit is developed, designed and tested for extraction and purification of viral DNA/RNA from cell-free biological fluids such as serum, plasma, urine, cell free body fluids, cell culture supernatants, and rinse liquid from swabs samples. The kit can be used for both research purposes and in vitro diagnosis (IVD). The product has not been tested for use in drug development, nor is suitable for administration to humans or animals. The product is intended for use by professionals only, such as technicians, physicians and biologists trained in molecular biological techniques. It is designed to be used with any downstream application employing enzymatic amplification or other enzymatic modifications of DNA/RNA followed by signal detection or amplification. Any diagnostic results generated by using the sample preparation procedure in conjunction with any downstream diagnostic assay should be interpreted with regard to other clinical or laboratory findings. To minimize irregularities in diagnostic results, adequate controls for downstream applications should be used. The FLAME BEADS Viral DNA/RNA Extraction Kit does not provide a diagnostic result. It is the user's sole responsibility of the user to use and validate the kit in conjunction with a downstream in-vitro diagnostic assay.

1.3 PRINCIPLE

The procedure is based on the reversible adsorption of nucleic acids to the FLAME BEADS magnetic beads under appropriate buffer conditions, while impurities are efficiently removed during the wash steps. The lysis of the sample is obtained by incubation with a lysis reagent (FLAME BEADS Viral Lysis Buffer). A suspension of magnetic beads (FLAME BEADS Magnetic Beads) is added to the lysate in a solution that facilitates the binding of nucleic acids to the beads. After magnetic separation, the magnetic beads are washed

1. General Information

with two special washing reagents (FLAME BEADS Washing Buffer 1 and FLAME BEADS Washing Buffer 2) to remove contaminants and salts. A further optional washing with absolute ethanol can be performed. The viral DNA/RNA is then eluted with a DNase/RNase free water that induces the nucleic acid to detach from the magnetic beads. The resulting high-quality total nucleic acid is then ready for use in downstream applications such as RT-PCR, PCR, or any type of other enzymatic reactions, or it can be frozen.

1.4 COVID-19 DNA/RNA EXTRACTION VALIDATION

FLAME BEADS Viral DNA/RNA Extraction kit has been validated for SARS-CoV-2 RNA isolation from clinical samples at the laboratory of U.O. Microbiologia, Pievesesitina (FC, Italy). For the clinical evaluation study, 166 clinical nasopharyngeal swab specimens previously tested for COVID-19 diagnosis were used. Of these, 45 were tested positive for SARS-CoV-2, and 121 were tested negative for SARS-CoV-2 RNA. RNA isolation was performed in parallel using FLAME BEADS Viral DNA/RNA Extraction kit and a Reference DNA/RNA Isolation kit, routinely used in the laboratory for COVID-19 diagnostics. Extracted DNA/RNA was then amplified for the detection of Sars-CoV-2, by identification of three target genes in compliance with recommendations of both Charite Medical Center and US Centers for Disease Control and Prevention.

Data demonstrated a 100% concordance between test results on samples extracted with FLAME BEADS Viral DNA/RNA Extraction kit and the Reference DNA/RNA Isolation kit. The diagnostic sensitivity and specificity were also 100%.

KIT	Reference RNA Isolation Kit (U.O. Microbiologia, Pievesistina)			
	+	-	Total	
FLAME BEADS Viral DNA/RNA Extraction Kit	+	45	0	45
	-	0	121	121
	Total	45	121	166

Concordance between test results obtained with FLAME BEADS Viral DNA/RNA Extraction kit and the Reference RNA Isolation kit for COVID-19 diagnostics.




FLAME BEADS Viral DNA/RNA Extraction kit has been validated for RNA isolation from SARS-CoV-19 clinical samples on 166 samples (45 positive samples and 121 negative samples) from nasopharyngeal swabs. RNA isolation was performed in parallel using FLAME BEADS Viral DNA/RNA Extraction kit and a reference kit. RNA was amplified with Allplex™ 2019-nCoV Assay (Seegene).

2. Components and other materials required

2.1 Kit contents

Please note that components from different batches cannot be used interchangeably

Kit components:

Product	Code	Symbol	Kit size FLB0002 (1x96 preps)	Kit size FLB0001 (8 x 96 preps)	Kit size FLB0003 (64 x 96 preps)	Kit size FLB0003 (64 x 96 preps L)
FLAME BEADS Viral Lysis Buffer	FLB187.....		30 ml	250 ml	2 x 1 l	2 x 1 l
FLAME BEADS Magnetic Beads	FLB188.....		2,4 ml	18 ml	150 ml	150 ml
FLAME BEADS Washing Buffer 1 (concentrate)	FLB189.....		12,5 ml	100 ml	800 ml	1000 ml
FLAME BEADS Washing Buffer 2 (concentrate)	FLB190.....	none	10 ml	80 ml	650 ml	1000 ml

* Contains chaotropic salts. Take appropriate laboratory safety measures, and wear gloves when handling. Not compatible with disinfecting agents that contain bleach. See Material Safety Data Sheet for safety information.

2.2 Shipping and Storage

The kit is shipped at room temperature. Store all the components at room temperature (15° to 30° C). Do not use the product after the expiration date showed on the label. Please keep the kit away from heat forces and light.

2.3 Reagents to be supplied by the user

- ◆ Ethanol (96 - 100%) for Molecular Biology
- ◆ Isopropanol for Molecular Biology
- ◆ DNase/RNase free H₂O

2. Components and other materials required

2.4 Equipment Needed for manual RNA isolation

- ◆ Micropipettes suitable for pipetting 10-20 µl, 150 µl, 300 µl, 500 µl.
- ◆ Vortex
- ◆ Magnet or magnetic separation plate for magnetic beads separation
- ◆ DNase/RNase free vials or plates
- ◆ DNase/RNase free disposable tips (filter tips are recommended)
- ◆ Ultra-Low Temperature Freezer for storage of isolated samples at -80 °C
- ◆ Biological Safety Cabinet suitable for work with potentially infectious samples. Please follow local guidelines for working with potentially infectious material in particular if the material is derived from a human or animal sample.

2.5 Equipments needed for automated RNA isolation

This kit is compatible with magnetic-based robotic workstations and with liquid handling robotic platforms. The needed equipments may vary depending on the instrument used and are:

- ◆ Magnetic-based robotic workstation or liquid handling robotic platforms for nucleic acid isolation
- ◆ Platform-specific consumables and plastics.
- ◆ Ultra-Low Temperature Freezer for storage of isolated samples at -80 °C
- ◆ Biological Safety Cabinet suitable for work with potentially infectious samples. Please follow local guidelines for working with potentially infectious material in particular if the material is derived from a human or animal sample.
- ◆ Personal Protective Equipment (PPE): Please follow local guidelines for working with potentially infectious material in particular if the material is derived from a human or animal sample

3. Before Starting

Please take a few moments to read this handbook carefully before beginning your preparation.

3.1 Preparation of FLAME BEADS Washing Buffer 1

FLAME BEADS Washing Buffer 1 is supplied as a concentrate. Before using it for the first time, transfer all the content of FLAME BEADS Washing Buffer 1 (concentrated) in a clean bottle (not provided) and add Ethanol (96-100%, not provided) as indicated in the following table:

Kit size	FLAME BEADS Washing Buffer 1 (concentrate)	Ethanol (96-100%) to add	FLAME BEADS Washing Buffer 1 (ready-to-use)
1x96	12,5 ml	37,5 ml	50 ml
8x96	100 ml	300 ml	400 ml
64x96	800 ml	2,4 l	3,2 l
64x96-L	1000 ml	3000 ml	4000 ml

Buffer FLAME BEADS Washing Buffer 1 is stable until expiration date when stored closed at room temperature (15-30°C).

3.2 Preparation of FLAME BEADS Washing Buffer 2

FLAME BEADS Washing Buffer 2 is supplied as a concentrate. Before using it for the first time, transfer all the content of FLAME BEADS Washing Buffer 2 (concentrated) in a clean bottle (not provided) and add Ethanol (96-100%, not provided) as indicated in the following table:

Kit size	FLAME BEADS Washing Buffer 2 (concentrate)	Ethanol (96-100%) to add	FLAME BEADS Washing Buffer 2 (ready-to-use)
1x96	10 ml	40 ml	50 ml
8x96	80 ml	320 ml	400 ml
64x96	650 ml	2,6 l	3,25 l
64x96-L	1000 ml	4000 ml	5000 ml

Buffer FLAME BEADS Washing Buffer 2 is stable until expiration date when stored closed at room temperature (+15°C / +30°C).

3. Before Starting

3.3 FLAME BEADS Viral Lysis Buffer

Viral Lysis Buffer may form salt precipitates upon storage below 20-25° C. If any precipitate formed, incubate the buffer bottle at 40 °C until all of the precipitates is re-dissolved.

3.4 FLAME BEADS Magnetic Beads

Before distributing the beads, make sure that the beads are completely re-suspended. Shake the storage bottle well or place it on a vortexer shortly. Magnetic separation time depends on the magnetic strength of the magnetic separator, distance of the separation plate from the magnetic pins, and the volume to be processed. Optimization may be required for each system.

3.5 FLAME BEADS Washing Buffer 1

FLAME BEADS Washing Buffer 1 may form salt precipitates upon storage below 20-25°C. If any precipitate formed, incubate the buffer bottle at 40 °C until all of the precipitates is re-dissolved.

4. Sample preparation

It is recommended to inactivate virus before DNA/RNA isolation.

4.1 Serum

Use a 150 μ l aliquote of sample to proceed with Step 1- Lyse the sample

4.2 Nasopharyngeal/oropharyngeal swab

For dry swab, place the dry swab in 400-500 μ l of sterile PBS with gentle shaking for 30 minutes (PBS should cover completely the swab head). Use a 150 μ l aliquote to proceed with Step 1-Lyse the sample.

For swab in Universal Transport Media or other preservation solution, incubate the swab for 30 minutes with gentle shaking to release sample material. Use a 150 μ l aliquote to proceed with Step 1-Lyse the sample.

4.3 Bronchoalveolar lavage and Sputum

Use a 150 μ l aliquote of sample to proceed with Step 1-Lyse the sample

4.4 Urine

Use a 150 μ l aliquote of sample to proceed with Step 1- Lyse the sample

4.5 Cell culture supernatants

Use a 150 μ l aliquote of sample to proceed with Step 1- Lyse the sample

5. Protocol for the isolation of viral RNA/DNA from cell-free samples (manual procedure)



5.1 Lyse the sample.

Add 300 µl of FLAME BEADS Viral Lysis Buffer to the sample and mix well by inversion for 4-6 times. Incubate at Room Temperature for 10 minutes. Note: optimization may be required for incubation time and incubation temperature, depending on the sample type.

Optional: for particular needs, viscous samples and simultaneous extraction of viral DNA/RNA, add 10 µl of Proteinase K (20 mg/ml). Mix and incubate at 56°C for 10 minutes.

5.2 Bind viral DNA/RNA.

Add 500 µl isopropanol and 20 µl FLAME BEADS Beads to the lysed sample. Mix by shaking for 5 min at room temperature (Optional: Mix by pipetting up and down or inversion). Remove supernatant after 1-2 min separation on the magnetic support.

5.3 Wash magnetic beads

Add 500 µl FLAME BEADS Washing Buffer 1 (prepared as reported in the section “Before Starting”) and mix well by pipetting the beads up and down several times and/or by vortexing. Remove supernatant after 1-2 min separation on the magnetic support.

5.4 Wash magnetic beads

Add 500 µl FLAME BEADS Washing Buffer 2 (prepared as reported at pag. 6) and mix well by pipetting the beads up and down several times and/or by vortexing. Remove supernatant after 1-2 min separation on the magnetic support.

5.5 Wash magnetic beads

Add 500 µl ethanol (95-100%) and mix well by pipetting the beads up and down several times and/or by vortexing. Remove supernatant after 1-2 min separation on magnetic support.

5.6 Dry magnetic beads

Incubate at 55 °C for 10-15 min or until the magnetic beads are dried.

5.7 Elute highly pure DNA/RNA

Add 50 100 µL DNase/ RNase free H₂O and mix by shaking (Optional: Mix by pipetting up and down). It is essential to cover the FLAME BEADS Beads completely with elution buffer during this step.

5.8 Collect DNA/RNA

Separate 1-2 min on the magnet and transfer viral DNA /RNA into a new elution DNase/ RNase free plate/tube.

6. Automatic Extraction on KingFisher™ Flex

This protocol is for purification of viral DNA/RNA from cell-free body fluids and samples on KingFisher™ Flex Magnetic Particle Processor with 96 Deep-Well Head. Ensure that the proper program **MVP_2Wash_200_Flex** has been downloaded from the product page and loaded onto the instrument.

6.1 Set up the plates.

Use standard 96 deep well plates compatible with KingFisher™ Flex.

Set up the Wash, Elution, and Tip Comb Plates outside the instrument according to the following table for the **MVP_2Wash_200_Flex**: protocol:

Plate	Plate position	Component	Reagent Volume per well
Wash 1 Plate	2	FLAME BEADS Washing Buffer 1	500 µl
Wash 2 Plate	3	FLAME BEADS Washing Buffer 2	500 µl
Elution Plate	4	DNase/RNase free water	50 µl
Tip Comb	5	Place a 96 Deep-well Tip Comb in a Standard Plate	

Set up the **Sample Plate** by adding in the order the following reagents to each well of a standard 96 deep well plate:

- 300 µl FLAME BEADS Viral Lysis buffer
- 500 µl Isopropanol
- 150 µl of sample
- 20 µl of FLAME BEADS Magnetic Beads. Be sure to mix well the bottle of FLAME BEADS Magnetic Beads before every pipetting.

6.2 Start the run

Select the program **MVP_2Wash_200_Flex** on the instrument.

Start the run. Load the prepared plates into the indicated position when prompted by the instrument.

6.3 Collect DNA/RNA

After the run is complete (~25 minutes), remove the elution plate from the instrument.

7. Automatic extraction on Auto-Pure96 (Allsheng)

This protocol is for purification of viral DNA/RNA from cell-free body fluids and samples on Auto-Pure96 (Allsheng).

7.1 Set up the program

Step	1	2	3	4	5	6	7
Name	Load	Bind	Wash 1	Wash 2	Wash 3	Elution	Unload
Plate	1	2	3	4	5	8	2
Mix Time (min)		5.0	1.0	1.0	1.0	5.0	
Mix amp (%)		80	80	80	80	80	
Wait Time (min)		0	0	0	10	0	
Volume (µl)		970	500	500	500	100	
Mix Speed							
(1-10)		8	5	5	5	2	
Temp (°C)		OFF	OFF	OFF	OFF	OFF	
Segment							
(1-5)		3	3	3	3	3	
Cycle times (1-10)		1	1	1	1	3	
Mag. Speed (1-10)		1	1	1	1	1	
Lip-IVl		0	0	0	0	0	
Anti-splash (0-30)s		0	0	0	0	0	
Estimated (s)		140	112	112	112	264	
1st Segment time		20	20	20	20	20	
2nd Segment time		20	20	20	20	20	
3rd Segment time		20	20	20	20	20	

7. Automatic extraction on Auto-Pure96 (Allsheng)

7.2 Set up the plates

For pre-filled plates, contact lifesciences.it@gvs.com

Use standard 96 deep well plates compatible with the instrument.

Set up the **Bind, Wash 1, Wash 2, Wash 3, Elution, and Tip Comb Plates** outside the instrument according to the following table

Plate	Plate position	Component	Reagent Volume per well
Loading Plate	1	No reagent	----
Tip Comb		Place a 96 Deep-well Tip Comb in the Loading Plate Plate	
Bind Plate	2	FLAME BEADS Viral Lysis buffer	300 µl
		Isopropanol	500 µl
		Sample	150 µl
		FLAME BEADS Magnetic Beads §	20 µl
Wash 1 Plate	3	FLAME BEADS Washing Buffer 1 (ready-to-use)	500 µl
Wash 2 Plate	4	FLAME BEADS Washing Buffer 2 (ready-to-use)	500 µl
Wash 3 Plate	5	Ethanol (96-100%)*	500 µl
Elution Plate	8	DNase/RNase free water*	100 µl

* not included

§ Be sure to mix well the bottle of FLAME BEADS Magnetic Beads before every pipetting

7.3 Start the run

Select the program on the instrument.

Load the prepared plates into the indicated position when prompted by the instrument.

Start the run.

7.4 Collect DNA/RNA

After the run is complete (~35 minutes), remove the elution plate from the instrument.

8. Automatic extraction on Tecan Freedom Evo®



The following indications give an overview of already tested settings on Tecan Freedom Evo® and can serve as a first guideline during the automation process.

Te-Shake™ settings (Tecan):

Lysis 1400 rpm for 10 min

Binding: 1400 rpm for 10 min

Washing: 1400 rpm for 5 min

Drying 55°C for 15 min

Elution: 1000 rpm for 5 min

Speed and time setting have to be adjusted when using a plate shaker for the binding, washing and elution steps.

For reliable results, be sure to mix well the FLAME BEADS Magnetic Beads during the extraction process. Beads should be completely resuspended before every step using the plate shaker or, alternatively, by pipetting up and down several times.

9. Troubleshooting

Low yield

Possible Causes	Precautions/Remedies
Insufficient elution buffer volume	Beads pellet must be covered completely with elution buffer
Insufficient performance of elution buffer during elution step	Remove ethanol from the final washing step completely before proceeding with elution
Beads over-drying	The beads should be free from any visible liquid ethanol but not left to completely dry out. Reduce drying time
Loss of beads	Increase time for magnetic separation and decrease aspiration speed

Beads carryover

Possible Causes	Precautions/Remedies
Magnetic separation time too short	Increase separation time
Aspiration speed too high during the elution step	Reduce aspiration speed for elution step.

Low purity of nucleic acids

Possible Causes	Precautions/Remedies
Insufficient washing procedure	Use only the appropriate separator combinations and of the plates. Ensure that the beads are resuspended during the washing. If the agitation is not sufficient to resuspend completely, mix repeatedly.
Evaporation of ethanol from Wash buffer	Close the bottles of the buffer well, avoiding the evaporation of the ethanol

Poor performance of RNA in downstream applications

Possible Causes	Precautions/Remedies
Ethanol carryover	The beads should be free from any visible liquid ethanol before the elution step.
RNA degradation	Avoid any RNase contamination

10. Warning and Precautions

- This kit is for In Vitro Diagnostic Use
- This Kit should only be used by skilled and qualified persons in IVD tests.
- When working with chemicals, always wear protective equipment accessories (goggles, work clothes, hats, shoes, gloves, etc.). For more information, please refer to the appropriate material safety data sheets (MSDSs) available online at www.gvs.com\www.gvs.com/flamebeadsrna
- Clinical samples and other specimen to be tested should be considered as potentially infectious substances and processed strictly in accordance with laboratory biosafety requirements
- Components from different batches cannot be used interchangeably. Do not collect reagents from different bottles of the same lot. After use, immediately close all bottles to avoid leakage, changes in buffer concentrations or buffer contamination. After the first opening, keep all the bottles in an upright position.
- Do not use a kit after the expiration date.
- Avoid any RNase contamination. Always wear gloves and change them often, especially after contact with skin, hair or other potentially RNase-contaminated surfaces. Use RNase-free solutions and RNase-free certified, disposable plasticware and filter tips. Maintain a separate area for RNA work. Carefully clean all the surfaces.
- Do not add bleach or acidic solutions directly to FLAME BEADS Lysis Buffer and FLAME BEADS Washing Buffer 1. They contain guanidine salts, which can form highly reactive compounds when combined with bleach. If liquid containing these buffers is spilt, clean with suitable laboratory detergent and water.
- GVS Filter Technology has not tested the liquid waste generated by the FLAME BEADS Viral DNA/RNA Extraction Kit procedures for residual infectious materials. Contamination of the liquid waste with residual infectious materials is highly unlikely, but cannot be excluded completely. Therefore, liquid waste must be considered infectious and be handled and discarded according to local safety regulations.
- In case of spillage or damage of bottles, proceed with the disposal of the components as chemical waste according to local safety regulations.
- Should a user detect a malfunctioning of the Product concerning the stated specifications, contact at lifescience.it@gvs.com to open claim for internal quality analysis.

Last updated: 25/11/2020

Contact

information and technical support: lifescience.it@gvs.com



GVS S.p.A. - Via Roma 50 - 40069 Zola Predosa (Bologna) ITALY |
tel. +39 051 6176311 | e-mail: gvs@gvs.com | www.gvs.com

REF Codice di riferimento o di ordine / reference or order code / Référence ou numéro de commande / referencia o número de pedido / referênciã ou número da encomenda / Referenz oder Bestellnummer / κωδικός προϊόντος ή παραγγελίας / Refarans veya sipariş numarsı / referenční nebo objednáací číslo

LOT Lotto / lot / Lot / lote / lote / charge / παρτίδα / parti / šarže

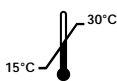


Data di scadenza / expiry date / date d'expiration / Fecha de caducidad / Data de vencimento / Verfallsdatum / Ημερομηνία λήξης / Son kullanma tarihi / datum expirace

IVD Per uso diagnostico in-vitro / For in-vitro diagnostic use / Pour diagnostic in-vitro / Para uso diagnóstico In-vitro / aplicação do diagnóstico In-vitro / Für den Gebrauch in der IN-VITRO-DIAGNOSTIK / για in vitro διαγνωστική χρήση / in –vitro diagnostik kullanım / pro použití in-vitro



Marcatura CE secondo le direttive IVD 98/79/CE / CE marking according to IVD guidelines 98/79/EC / marquage CE conforme aux directives IVD 98/79/EC / marcado CE según directiva de IVD 98/79/CE / marcação-CE segundo a directriz-IVD 98/79/CE / CE-Markierung bei Erfüllung der IVD Richtlinie 98/79/EG / Σημανση CE βάσει κοινοτικής οδηγίας IVD 98/79/EC / 98/79/EC IVD tüzüğüne göre CE işareti / CE označení dle IVD 98/79/EU



Conservare a +15°C / +30°C / keep at +15°C / +30°C / conserver à +15°C / +30°C / Conservar a +15°C / +30°C / conservar a +15°C / +30°C / Lagerung bei +15°C / +30°C / φύλαξη στους +15°C / +30°C / +15°C / +30°C da saklayınız / skladovat při +15°C / +30°C



Fabbricante / Manufacturer / Fabriquant / produzido por / Fabricante / produkt der / κατασκευάζεται από / tarafından üretilmiştir / výrobc



Rischio biologico / Biohazard / Risque Biologique / Riesgo Biológico / Risco Biológico / Βιολογικός κίνδυνος / Riziko tehlike biyolojik/ Biologicky nebezpečné



Consultare la metodica operativa / consult instructions for use / consulter le mode opératoire / consultar las instrucciones de uso / consultar as instruções de uso / Schauen Sie die Arbeitsanleitung an / συμβουλευτείτε τις οδηγίες χρήσης / kullanımda başvurulacak bilgiler / Sledujte návod k použití



Sufficiente per 96 test / sufficient for 96 tests / suffisant pour 96 déterminations / suficiente para 96 determinaciones / Componentes para 96 testes / genügend für 96 Tests / επαρκεί για 96 τεστ / 96 test için yeterli / dostajující pro 96 testů

12. Ordering information

Product	Code	Unit Size
FLAME BEADS Viral DNA/RNA Extraction kit	FLB0001	8x96 samples
	FLB0002	1x96 samples
	FLB0003	64x96 samples
	FLB0007	6x96 samples (with extra-buffer)

For further information, visit

WWW.GVS.COM

Contact

lifesciences.it@gvs.com

For orders

areacsm@gvs.it

Copyright © 2020 GVS © S.p.A., All Right Reserved Printed in Italy

Printing History: Version: 25/11/2020

Any other third party trademarks, service marks, registered trademarks, or registered service marks may be the property of their respective owners.

While every precaution has been taken in the preparation of this catalog, data are subject to change without notice.

Results in specific application of GVS products may vary according to the conditions and applications. GVS assumes no responsibility for damage resulting from incorrect use of our products.



FILTER TECHNOLOGY

**THE ONLY WAY
TO SAY FILTRATION**

