Catalog number RG-Q5HF · Revision 1 · 2026-02-10

High-Fidelity Hot-Start DNA Polymerase with GC Enhancer (2 units/µL)

Prepared in accordance with the 16-section format of the Globally Harmonized System and OSHA 29 CFR 1910.1200 Appendix D.

1. Identification

Product name	High-Fidelity Hot-Start DNA Polymerase with GC Enhancer (2 units/µL)
Catalog number	RG-Q5HF
Product SKUs	RG-Q5HF-100U, RG-Q5HF-500U, RG-Q5HF-1000U
Recommended use	Laboratory research use only.
Restrictions on use	Not for diagnostic, therapeutic, human, or veterinary use.
Supplier	Bramante Biologics, Cambridge, Massachusetts, United States, support@bramantebio.com, bramantebio.com
Emergency contact	support@bramantebio.com. For a medical emergency contact your local poison control centre or emergency services.

2. Hazard(s) identification

GHS classification: not classified as hazardous under OSHA 29 CFR 1910.1200 or Regulation (EC) No 1272/2008.

Signal word: none. Hazard statements: none. Precautionary statements: none required.

Handle in accordance with good laboratory practice. The hazards of any material of biological origin cannot be fully characterised; treat as potentially hazardous.

3. Composition / information on ingredients

Active substance	High-Fidelity Hot-Start DNA Polymerase with GC Enhancer (2 units/µL) (DNA polymerase, family B, 3'->5' exonuclease (proofreading))
Supplied buffer	5x reaction buffer with 10 mM MgCl2 (2 mM final at 1x); GC enhancer supplied separately
CAS number	Not assigned. Mixture or recombinant biological product.

4. First-aid measures

Eye contact	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.
Skin contact	Wash with soap and plenty of water. Remove contaminated clothing. Seek medical attention if irritation develops.

RG-Q5HF continued

Inhalation	Move the person to fresh air and keep comfortable for breathing. Seek medical attention if symptoms occur.
Ingestion	Rinse mouth. Do NOT induce vomiting. Seek medical attention.
Note to physician	Treat symptomatically. No specific antidote is known.

5. Fire-fighting measures

Suitable extinguishing media	Water spray, carbon dioxide, dry chemical, or alcohol-resistant foam. Use media appropriate to the surrounding fire.
Specific hazards	Thermal decomposition may produce carbon oxides and nitrogen oxides.
Protective equipment	Self-contained breathing apparatus and full protective clothing for fire-fighters.

6. Accidental release measures

Personal precautions	Wear gloves, eye protection, and a laboratory coat. Avoid generating aerosols.
Environmental precautions	Do not allow to enter drains or watercourses.
Containment and clean-up	Absorb with an inert absorbent, collect into a labelled container, and decontaminate the area with a suitable laboratory disinfectant or 70% ethanol. Dispose of in accordance with local regulations.

7. Handling and storage

Safe handling	Use in a laboratory setting by trained personnel. Do not eat, drink, or smoke in the work area. Wash hands after handling.
Storage conditions	-20 °C
Incompatibilities	Strong oxidising agents.

8. Exposure controls / personal protection

Occupational exposure limits	None established for this product.
Engineering controls	General laboratory ventilation. Use a biological safety cabinet where aerosol generation is possible.
Eye protection	Safety glasses with side shields conforming to EN 166 or ANSI Z87.1.
Skin protection	Nitrile gloves and a laboratory coat.
Respiratory protection	Not normally required with adequate ventilation.

9. Physical and chemical properties

Appearance	Aqueous solution, supplied in storage buffer.
Odour	Odourless
Solubility	Miscible with water
Flash point	Not applicable
Other data	No further relevant data available

10. Stability and reactivity

Chemical stability	Stable under the recommended storage conditions (-20 °C).
Conditions to avoid	Repeated freeze-thaw cycles, elevated temperature, and prolonged exposure to light.
Incompatible materials	Strong oxidising agents.
Hazardous decomposition	None known under normal conditions of use.

11. Toxicological information

No toxicological data are available for this product as supplied. The information below reflects the absence of testing, not the absence of hazard.

Acute toxicity	Not tested.
Skin / eye irritation	Not tested. May cause mechanical irritation.
Sensitisation, mutagenicity, carcinogenicity, reproductive toxicity	Not tested. No component is listed as a carcinogen by IARC, NTP, or OSHA.

12. Ecological information

Ecotoxicity	No data available.
Persistence and degradability	No data available.
Other adverse effects	Do not allow to enter the environment.

13. Disposal considerations

RG-Q5HF continued

Waste treatment	Dispose of contents and container in accordance with local, regional, and national regulations. Treat as laboratory waste. Do not discharge to drains without authorisation.

14. Transport information

DOT / IATA / IMDG	Not classified as a dangerous good for transport.
UN number	Not applicable.

15. Regulatory information

TSCA	This product is used for research and development purposes and is exempt from TSCA inventory listing under 40 CFR 720.36.
SARA Title III	No component is subject to reporting requirements.
California Proposition 65	No component is known to the State of California to cause cancer or reproductive toxicity.
EU	Not classified under Regulation (EC) No 1272/2008.

16. Other information

Prepared by Bramante Biologics.

This Safety Data Sheet is provided in good faith and is based on information available to us at the date of issue. It describes the product only with respect to safety and does not constitute a warranty of any property. The user is responsible for determining suitability and for safe conditions of use.

For research use only. Not for use in diagnostic or therapeutic procedures.