



FastGene® Plasmid Mini Kit

Cat. No.	Product	Content
FG-90#	FastGene® Plasmid Mini Kit	1x mP1 buffer
		1x mP2 buffer
		1x mP3 buffer
		1x mP4 buffer
		1x mP5 buffer
		1x mP6 buffer
		1x RNase

1. Identity of the substance and the manufacturer

1.1. Name of the substances or preparations

FastGene® Plasmid Mini Kit

1.2. Recommended use of the chemical and restrictions on use

Laboratory research use only.

1.3. Name and address of the manufacturer

NIPPON Genetics EUROPE GmbH

Mariaweilerstraße 28 a

52349 Düren

Germany

1.4. Emergency telephone contact

+49 2421/554960

2. Hazards identification

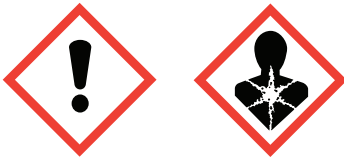
2.1. Classification of the substance or mixture

2.1.1. mP1 buffer

Occupational exposure presents little or no health hazard.



2.1.2. mP2 buffer



Signal word: warning

Warning!

Irritant.

Harmful if swallowed.

May cause allergic skin reaction.

Possible reproductive system hazard based on animal data.

2.1.3. mP3 buffer



Signal word: danger

Danger!

Corrosive to tissue.

Harmful if swallowed.

May cause allergic skin reaction.

2.1.4. mP4 buffer



Signal word: danger

Danger!

Corrosive to tissue.

Harmful if swallowed.

May cause allergic skin reaction.

2.1.5. mP5 buffer

Occupational exposure presents little or no health hazard.



2.1.6. mP6 buffer

Occupational exposure presents little or no health hazard.

2.1.7. RNase

Occupational exposure presents little or no health hazard.

2.2. Potential health effects

2.2.1. Eye

Can cause moderate irritation, tearing and reddening, but not likely to permanently injure eye tissue.

Can cause severe irritation.

Eye contact may result in corneal injury.

Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Temporary vision impairment (cloudy or blurred vision) is possible.

2.2.2. Skin

Can cause moderate skin irritation, defatting, and dermatitis.

Not likely to cause permanent damage.

May cause allergic skin reaction.

Corrosive to skin tissue.

Can cause chemical burns.

Continued or prolonged contact may irritate the skin and cause a skin rash (dermatitis).

Upon prolonged or repeated exposure, harmful if absorbed through the skin.

May cause minor systemic damage.

2.2.3. Inhalation

Can cause minor respiratory irritation, dizziness, weakness, fatigue, nausea, and headache.

Can be corrosive to the respiratory tract causing severe irritation and tissue damage.

If liquid mists are breathed into the lungs, they may be rapidly absorbed through the lungs and injure specific target organs.

No toxicity expected from inhalation.

2.2.4. Ingestion

Mildly irritating to mouth, throat, and stomach.

Can cause abdominal discomfort.



Harmful if swallowed.
May cause systemic poisoning.
Corrosive to tissue.
Can cause severe and permanent damage to mouth, throat, and stomach.
Aspiration may lead to lung damage.
Ingestion of this product may result in central nervous system effects including headache, sleepiness, dizziness, slurred speech and blurred vision.
Harmful if swallowed.
May cause systemic poisoning.

2.2.5. Chronic

No data on cancer.
Contains a substance(s) that is a possible reproductive system hazard based on high dose tests with laboratory animals.

3. Composition/information about the components

3.1. Substance/mixture

3.1.1. mP1 buffer

No hazardous substances in concentrations to be declared.

3.1.2. mP2 buffer

	Concentration	CAS No.	EC No.
Sodium hydroxide	0.1-1%	1310-73-2	215-185-5
Sodium dodecyl sulfate	1-2.5%	151-21-3	205-788-1

3.1.3. mP3 buffer

	Concentration	CAS No.	EC No.
Guanidinium chloride	25-50%	50-01-1	200-002-3
Acetic acid	10-25%	64-19-7	200-580-7



3.1.4. mP4 buffer

	Concentration	CAS No.	EC No.
Guanidinium chloride	25-50%	50-01-1	200-002-3

3.1.5. mP5 buffer

No hazardous substances in concentrations to be declared.

3.1.6. mP6 buffer

No hazardous substances in concentrations to be declared.

3.1.7. RNase

No hazardous substances in concentrations to be declared.

4. First-aid measures

4.1. Description of necessary first-aid measures

4.2.1. Inhalation

- Remove to fresh air.
- If breathing is difficult, have a trained individual administer oxygen.
- If not breathing, give artificial respiration and have a trained individual administer oxygen.
- Get medical attention immediately.

4.2.2. Skin contact

- Wash with soap and water.
- Remove contaminated clothing and launder immediately, and discard contaminated leather goods, and wash before re-use.
- Get medical attention immediately if irritation develops or persists.

4.2.3. Eye contact

- Flush eyes with plenty of water for at least 20 minutes retracting eyelids often.
- Tilt the head to prevent chemical from transferring to the uncontaminated eye.
- Remove contact lenses, clean before re-use.
- Get immediate medical attention.



4.2.4. Ingestion

4.2.4.1. mP1 buffer

- Give plenty of water, if conscious.
- If vomiting occurs naturally, wash mouth out.
- Be prepared to induce vomiting upon a physician's advice.
- Obtain medical attention if symptoms develop.

4.2.4.2. mP2 buffer

- Do not induce vomiting and seek medical attention immediately.
- Drink two glasses of water or milk to dilute.
- Provide medical care provider with this MSDS.
- Corrosive.

4.2.4.3. mP3 buffer

- Do not induce vomiting and seek medical attention immediately.
- Drink two glasses of water or milk to dilute.
- Provide medical care provider with this MSDS.
- Corrosive.

4.2.4.4. mP4 buffer

- Do not induce vomiting and seek medical attention immediately.
- Drink two glasses of water or milk to dilute.
- Provide medical care provider with this MSDS.
- Corrosive.

4.2.4.5. mP5 buffer

- Give plenty of water, if conscious.
- If vomiting occurs naturally, wash mouth out.
- Be prepared to induce vomiting upon a physician's advice.
- Obtain medical attention if symptoms develop.

4.2.4.6. mP6 buffer

- Give plenty of water, if conscious.
- If vomiting occurs naturally, wash mouth out.
- Be prepared to induce vomiting upon a physician's advice.
- Obtain medical attention if symptoms develop.



4.2.4.7. RNase

- Give plenty of water, if conscious.
- If vomiting occurs naturally, wash mouth out.
- Be prepared to induce vomiting upon a physician's advice.
- Obtain medical attention if symptoms develop.

Note to physician: treat symptomatically.

5. In case of fire

5.1. Suitable extinguishing agents

5.1.1. mP1 buffer

Use means appropriate for surrounding materials.

5.1.2. mP2 buffer

Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires.

Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire.

Do not direct a water stream directly into the hot burning liquid. Use water spray/fog for cooling.

5.1.3. mP3 buffer

Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires.

Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire.

Do not direct a water stream directly into the hot burning liquid. Use water spray/fog for cooling.

5.1.4. mP4 buffer

Use alcohol resistant foam, carbon dioxide, dry chemical, or water spray when fighting fires.

Water or foam may cause frothing if liquid is burning but it still may be a useful extinguishing agent if carefully applied to the fire.



Do not direct a water stream directly into the hot burning liquid. Use water spray/fog for cooling.

5.1.5. mP5 buffer

Use means appropriate for surrounding materials.

5.1.6. mP6 buffer

Use means appropriate for surrounding materials.

5.1.7. RNase

Use means appropriate for surrounding materials.

5.2. Not suitable extinguishing agents

No information available.

5.3. Advice for fire fighters

- Do not enter fire area without proper protection including self-contained breathing apparatus and full protective equipment.
- Fight fire from a safe distance and a protected location due to the potential of hazardous vapors and decomposition products.

5.4. Hazardous Combustion Products

Includes carbon dioxide, carbon monoxide, and dense smoke.

6. In case of spillage

Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to section 8 for personal protection equipment recommendations.

6.1. Methods and materials for containment and cleanup

6.1.1. mP1 buffer

Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.



6.1.2. mP2 buffer

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

6.1.3. mP3 buffer

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

6.1.4. mP4 buffer

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in section 8 of this MSDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill. Ventilate the contaminated area. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

6.1.5. mP5 buffer

Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

6.1.6. mP6 buffer

Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.



6.1.7. RNase

Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

7. Handling and storage

Storage of some materials is regulated by federal, state, and/ or local laws.

Storage pressure: ambient

7.1. Handling procedures

7.1.1. mP1 buffer

- Keep closed or covered when not in use.

7.1.2. mP2 buffer

- Harmful or irritating material.
- Avoid contacting and breathing the material.
- Use only in a well ventilated area.
- Keep closed or covered when not in use.

7.1.3. mP3 buffer

- Harmful or irritating material.
- Avoid contacting and breathing the material.
- Use only in a well ventilated area.
- Keep closed or covered when not in use.

7.1.4. mP4 buffer

- Harmful or irritating material.
- Avoid contacting and breathing the material.
- Use only in a well ventilated area.
- Keep closed or covered when not in use.

7.1.5. mP5 buffer

- Keep closed or covered when not in use.



7.1.6. mP6 buffer

- Keep closed or covered when not in use.

7.1.7. RNase

- Keep closed or covered when not in use.

7.2. Storage procedure

Suitable for most general chemical storage areas.

8. Exposure controls/personal protection

8.1. Control parameters

8.1.1. Exposure limits

Component	OSHA PEL (ppm)	AGCIH TWA (ppm)
Sodium dodecyl sulfate	Not established	Not established
Acetic acid	10 PPM	10 PPM
Guanidine HCL	Not established	Not established

8.1.2. Engineering Controls

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

8.2. Personal protective equipment

8.2.1. Respiratory protection



Respiratory: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.



8.2.2. Eye protection



An eye wash station must be available where this product is used. Wear chemical goggles.

8.2.3. Skin protection

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work. Have a safety shower available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance / physical state	Liquid/ suspension
Odour	Odourless
Specific Gravity / density	Not established
Octanol/water partition coeff	Not established
Volatiles	Not established
Evaporation rate	Not established
Viscosity	Not established
Flash point	100 °C
Melting point / melting range	> 183 °C
Boiling point / boiling range	183 °C
Upper Flammable Limit %	Not available
Lower Flammable Limit %	Not available
Autoignition Temperature Deg C	Not available

10. Stability and reactivity

10.1. Chemical stability

Stable under normal conditions.



10.2. Conditions to avoid

- Strong-oxidizing agents.
- High temperatures.
- Strong acids.

10.3. Hazardous decomposition products

None known.

10.4. Hazardous polymerization

Hazardous polymerization will not occur.

11. Toxicological information

11.1. Information on toxicological effects

No toxic, infectious, corrosive material inside.

Not applied to IATA DGR.

12. Ecological information

12.1. Ecotoxicological Information

No ecological information available.

12.2. Persistence and degradability

Bioconcentration is not expected to occur.

13. Disposal considerations

13.1. Regulatory information

Not applicable.



13.2. Disposal method

Clean up and dispose of waste in accordance with all federal, state, and or local environmental.

14. Transport information

No toxic, infectious, corrosive material inside.

Not applied to IATA DGR.

Proper Shipping Name: not determined.

15. Regulatory information

15.1. Product related hazard information

Fire	Not determined
Health	Not determined
Reactivity	Not determined

16. Other information

This information is based on our present knowledge. Its objective is to describe the product from the point of view of safety, and no warranty is made other than its characteristics. This information does not absolve the user in any circumstances from observing other Legislative, Regulatory and Administrative requirements applying to the product, and to safety, hygiene and the well-being of the people in the workplace.



NIPPON GENETICS EUROPE GmbH

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