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[Rev 4.4.11/IA-JK]

Emergency Contact: Chemtrec 800-424-9300

Product: XIT™ Genomic DNA from Cells Catalog #: 786-303 & 786-304

Components	786-303	786-304
XIT™ Lysis Buffer	10ml	100ml
XIT [™] Protein Precipitation Buffer	2.5ml	25ml
TE Buffer	1.5ml	20ml
LongLife™ RNase * (Note: See Certificate of Origin on last page)	0.5ml	0.5ml

Material Safety Data Sheet

Section 1: Chemical Identification

Name: XITTM Lysis Buffer

Catalog #: a component of product Cat.# 786-303 & 786-304 indicated above

Section 2: Composition/Information on Ingredients

Proprietary composition believed to be non-hazardous.

Section 3: <u>Hazards Identification</u>

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008

This substance is not classified as dangerous according to Directive 67/548/EEC.

Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

Section 4: First-Aid Measures

After eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes.

After skin contact: Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.

<u>After Inhalation:</u> None needed for non-volatile items. For items emitting vapor and dust particles: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

After swallowing: Wash out mouth with water provided person is conscious. Call a physician.

Section 5: Fire Fighting Measures

Extinguishing Agents: Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

Special fire fighting procedures: None needed

Unusual fire and explosions hazards: Not known

Section 6: Accidental Release Measures

Human Safety Precautions: Chemical safety goggles, rubber boots and rubber gloves.

Cleaning/Collecting Measures: Mop up, place in a bag and hold for waste disposal.

Section 7: Handling and Storage

Refer to section 8.

Section 8: Exposure Controls/Personal Protection

Personal protective equipment: Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

General Protective and Hygienic Measures: Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

Section 9: Physical and Chemical Properties

Form: Liquid

Color: Clear

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be Avoided: No decomposition if used according to specifications.

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: No known dangerous decomposition products.

Section 11: Toxicological Information

Primary Irritant Effects: Harmful if inhaled or ingested.

On the skin: Material is irritating to skin and mucous membranes.

On the eye: Causes eye irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Section 12: Ecological Information

Data not yet available.

Section 13: Disposal Considerations

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers.

Observe all federal, state and local environmental regulations.

Section 14: <u>Transport Information</u>

ADR/RID: Not dangerous goods **IMDG:** Not dangerous goods **IATA:** Not dangerous goods

Section 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16: Other Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. G-Biosciences shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: XIT™ Protein Precipitation Buffer

Catalog #: a component of product Cat.# 786-303 & 786-304 indicated above

Section 2: Composition/Information on Ingredients

Proprietary composition believed to be non-hazardous.

Section 3: Hazards Identification

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008 This substance is not classified as dangerous according to Directive 67/548/EEC.

Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

Section 4: First-Aid Measures

After eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes.

After skin contact: Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.

<u>After Inhalation:</u> None needed for non-volatile items. For items emitting vapor and dust particles: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

After swallowing: Wash out mouth with water provided person is conscious. Call a physician.

Section 5: Fire Fighting Measures

Extinguishing Agents: Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

Special fire fighting procedures: None needed

Unusual fire and explosions hazards: Not known

Section 6: Accidental Release Measures

Human Safety Precautions: Chemical safety goggles, rubber boots and rubber gloves.

Cleaning/Collecting Measures: Mop up, place in a bag and hold for waste disposal.

Section 7: Handling and Storage

Refer to section 8.

Section 8: Exposure Controls/Personal Protection

Personal protective equipment: Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

General Protective and Hygienic Measures: Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

Section 9: Physical and Chemical Properties

Form: Liquid

Color: Clear

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be Avoided: No decomposition if used according to specifications.

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: No known dangerous decomposition products.

Section 11: Toxicological Information

Primary Irritant Effects: Harmful if inhaled or ingested.

On the skin: Material is irritating to skin and mucous membranes.

On the eye: Causes eye irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Section 12: Ecological Information

Data not yet available.

Section 13: Disposal Considerations

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers.

Observe all federal, state and local environmental regulations.

Section 14: Transport Information

ADR/RID: Not dangerous goods **IMDG:** Not dangerous goods **IATA:** Not dangerous goods

Section 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16: Other Information

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: TE Buffer

Catalog #: a component of product Cat# 786-303 & 786-304 indicated above.

Section 2: Composition/Information on Ingredients

Contains: Tris [CAS# 77-86-1] >5% and Ethylene diamine tetracetic acid; EDTA [CAS# 6381-92-6] >5% in DI water.

Section 3: Hazards Identification

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008 This substance is not classified as dangerous according to Directive 67/548/EEC.

Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

Section 4: First-Aid Measures

After eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes.

After skin contact: Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.

<u>After Inhalation:</u> None needed for non-volatile items. For items emitting vapor and dust particles: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

After swallowing: Wash out mouth with water provided person is conscious. Call a physician.

Section 5: Fire Fighting Measures

Extinguishing Agents: Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

Special fire fighting procedures: None needed

Unusual fire and explosions hazards: Not known

Section 6: Accidental Release Measures

Human Safety Precautions: Chemical safety goggles, rubber boots and rubber gloves.

Cleaning/Collecting Measures: Mop up, place in a bag and hold for waste disposal.

Section 7: Handling and Storage

Refer to section 8.

Section 8: Exposure Controls/Personal Protection

Personal protective equipment: Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

General Protective and Hygienic Measures: Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

Section 9: Physical and Chemical Properties

Form: Liquid

Color: Clear

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be Avoided: No decomposition if used according to specifications.

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: No known dangerous decomposition products.

Section 11: Toxicological Information

Primary Irritant Effects: Harmful if inhaled or ingested.

On the skin: Material is irritating to skin and mucous membranes.

On the eye: Causes eye irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Section 12: Ecological Information

Data not yet available.

Section 13: Disposal Considerations

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers. Observe all federal, state and local environmental regulations.

Section 14: <u>Transport Information</u>

ADR/RID: Not dangerous goods **IMDG:** Not dangerous goods **IATA:** Not dangerous goods

Section 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Section 16: Other Information

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: Longlife[™] RNase A

Catalog #: a component of product Cat.# 786-303 & 786-304 indicated above.

Section 2: Composition/Information on Ingredients

Contains Ribonuclease A from bovine pancreas [CAS No. 9001-99-4] 5mg/ml and Ammonium sulfate [CAS No. 7783-20-2] >50%.

Section 3: <u>Hazards Identification</u>

Classification of the substance or mixture

Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008 This substance is not classified as dangerous according to Directive 67/548/EEC.

Label elements

The product does not need to be labeled in accordance with EC directives or respective national laws.

Section 4: First-Aid Measures

After eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes.

After skin contact: Immediately wash skin with soap and copious amounts of water. Wash contaminated clothing before reuse.

After Inhalation: None needed for non-volatile items. For items emitting vapor and dust particles: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

After swallowing: Wash out mouth with water provided person is conscious. Call a physician.

Section 5: Fire Fighting Measures

Extinguishing Agents: Water spray, Carbon dioxide, dry chemical powder or appropriate foam.

Special fire fighting procedures: None needed

Unusual fire and explosions hazards: Not known

Section 6: Accidental Release Measures

Human Safety Precautions: Chemical safety goggles, rubber boots and rubber gloves.

Cleaning/Collecting Measures: Mop up, place in a bag and hold for waste disposal.

Section 7: <u>Handling and Storage</u>

Refer to section 8.

Section 8: Exposure Controls/Personal Protection

Personal protective equipment: Chemical safety goggles, compatible chemical-respirator, NIOSH/MSHA-approved respirator, and safety shower and eye bath.

General Protective and Hygienic Measures: Mechanical exhaust required. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Irritant. Keep tightly closed. Store in a cool dry place.

Section 9: Physical and Chemical Properties

Form: Liquid

Color: Clear

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be Avoided: No decomposition if used according to specifications.

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: No known dangerous decomposition products.

Section 11: Toxicological Information

Primary Irritant Effects: Harmful if inhaled or ingested.

On the skin: Material is irritating to skin and mucous membranes.

On the eye: Causes eye irritation.

Sensitization: No sensitizing effects known.

Additional toxicological information:

Section 12: Ecological Information

Data not yet available.

Section 13: Disposal Considerations

Recommendation: Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Hand over to hazardous waste disposers.

Observe all federal, state and local environmental regulations.

Section 14: <u>Transport Information</u>

ADR/RID: Not dangerous goods **IMDG:** Not dangerous goods **IATA:** Not dangerous goods

Section 15: Regulatory information

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Section 16: Other Information

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*Certificate of Origin

Product Name:	$Longlife^{TM}$ - RNase (10 Units/ μ 1)*
Animal Species:	Bovine
Tissue Used:	Pancreas
Country of Origin of Biological Component:	New Zealand

Country of Manufacture: USA

Was animal proteins fed to the animals: No

Was ruminant protein fed to the animals: No

Does any component contain neuronal tissue: No

The above information is believed to be correct to the best of our knowledge and to be used for the purpose of determining animal origin only and not country of origin for import/export purpose.

This document has been produced electronically and is valid without a signature

Technical/QC Dept Geno Technology Inc/G-Biosciences

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