

G-Biosciences/Genotech: St. Louis, MO, USA; www.GBiosciences.com email: technical@GBiosciences.com

Product: HOOK Peptide Coupling Kit (*Amine Reactive*)

Catalog #: 786-067, 786-68, 786-069 & 786-070 [LU 12.09.09/IA-JK]

Description	786-067	786-068	786-069	786-070
5X Optimizer Buffer IV	25ml	25ml	25ml	25ml
EDC (1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride), <u>50mg/vial</u>	1 vial	1 vial	1 vial	1 vial
Tube-O-Reactor (Medi) includes 5 Tube-O-Dialyzers™ MEDI (MWCO 8000), 5 Floats, 5 Dialysis Cups and 30 Glass Balls	1	1	1	1
<i>OneQuant</i> ™ Bovine serum albumin (2mg/vial)	N/A	5 vials	N/A	N/A
<i>OneQuant</i> ™ Keyhole Limpet Hemocyanin (2mg/vial)	N/A	N/A	5 vials	N/A
<i>OneQuant</i> ™ HyperCarrier™ (2mg/vial)	N/A	N/A	N/A	5 vials

Material Safety Data Sheet

Section 1: Chemical Identification

Name: 5X Optimizer Buffer IV

Catalog #: A component of product Cat#786-067, 786-068, 786-069, and 786-070, indicated above.

Section 2: Composition/Information on Ingredients

Contains: Sodium Chloride CAS# 7647-14-5 <5%, MES CAS# 145224-94-8 <25%

Section 3: Hazards Identification

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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.

After Inhalation: 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. Wash contaminated clothing before reuse.

Section 5: Fire Fighting Measures

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

Special fire fighting procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Human Safety Precautions: Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

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

Avoid raising dust

Ventilate area and wash spill site after material pickup is complete.

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 Hygiene Measures: Do not breathe in dust. 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: Not available

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.

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

Not dangerous goods. Safe for all transport.

Section 15: Regulatory information

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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: EDC (1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride)

Catalog #: A component of product Cat#786-067, 786-068, 786-069, and 786-070, indicated above

Section 2: Composition/Information on Ingredients

Contains: EDC (1-Ethyl-3-(3-dimethylaminopropyl) carbodiimide hydrochloride)

Section 3: Hazards Identification

Label precautionary statements.

Irritating to eyes, respiratory system, and, skin.

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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.

After Inhalation: 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. Wash contaminated clothing before reuse.

Section 5: Fire Fighting Measures

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

Special fire fighting procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Human Safety Precautions: Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

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

Avoid raising dust

Ventilate area and wash spill site after material pickup is complete.

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 Hygiene Measures: Mechanical exhaust required. Do not breathe in dust. 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: Solid

Color: White

Odor: Not available

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.

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

Not dangerous goods. Safe for all transport.

Section 15: Regulatory information

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Section 16: Other Information

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: Tube-O-Dialyzer™

Catalog #: A component of product Cat#786-067, 786-068, 786-069, and 786-070, indicated above.

Section 2: Composition/Information On Ingredients

Lab Plastic In Solution Of Sodium Azide (0.05%)

Section 3: Hazards Identification

Plastic believed to be non-hazardous.

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: *OneQuant*TM Bovine Serum Albumin (2mg/vial)

Catalog #: a component of product Cat# 786-068 indicated above

Section 2: Composition/Information on Ingredients

Contains protein Bovine Serum Albumin (BSA), immunological grade, **CAS# 9048-46-8**

Section 3: Hazards Identification

Label precautionary statements. Irritating to eyes, respiratory system, and skin In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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.

After Inhalation: 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. Wash contaminated clothing before reuse.

Section 5: Fire Fighting Measures

Extinguishing Agents:

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

Special fire fighting procedures:

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Human Safety Precautions: Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

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

Avoid raising dust

Ventilate area and wash spill site after material pickup is complete.

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 Hygiene Measures: Mechanical exhaust required. Do not breathe in dust. 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: Powder

Color: white

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be avoided:

No decomposition if used according to specifications. Avoid moisture, ignition sources, strong oxidizing agents and strong acids..

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: Carbon oxides.

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.

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

Not dangerous goods. Safe for all transport.

Section 15: Regulatory information

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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: *OneQuant*[™] KLH (Keyhole limpet hemocyanin)

Catalog #: A component of product Cat# 786-069 indicated above.

Section 2: Composition/Information on Ingredients

Contains KLH 98 -100% CAS# 9013-72-3

Section 3: Hazards Identification

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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.

After Inhalation: 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. Wash contaminated clothing before reuse.

Section 5: Fire Fighting Measures

Extinguishing Agents:

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

Special fire fighting procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Unusual fire and explosions hazards: Emits toxic fumes under fire conditions.

Section 6: Accidental Release Measures

Human Safety Precautions: Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.

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

Avoid raising dust

Ventilate area and wash spill site after material pickup is complete.

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 Hygiene Measures:

Mechanical exhaust required. Do not breathe in dust. 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: Powder

Color: None

Odor: None

Section 10: Stability and Reactivity

Thermal Decomposition/Conditions to be avoided:

No decomposition if used according to specifications. Avoid light, moisture, and strong oxidizing agents.

Dangerous Reactions: No dangerous reactions known.

Dangerous Products of Decomposition: Carbon and copper oxides.

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.

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

Not dangerous goods. Safe for all transport.

Section 15: Regulatory information

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Section 16: Other Information

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Material Safety Data Sheet

Section 1: Chemical Identification

Name: OneQuant™ HyperCarrier™

Catalog #: A component of product Cat #786-070 indicated above

Section 2: Composition/Information on Ingredients

Contains: Proprietary protein coupling agent believed to be non-hazardous

Section 3: Hazards Identification

Label precautionary statements. Irritating to eyes, respiratory system, and, skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

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.

After Inhalation: 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. Wash contaminated clothing before reuse.

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: None known

Section 6: Accidental Release Measures

Human Safety Precautions: Wear chemical safety goggles, rubber boots and heavy rubber gloves.

Cleaning/Collecting Measures: Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

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 Hygiene Measures:

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

Section 9: Physical and Chemical Properties

Form: Solid

Color: White

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.

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

Not dangerous goods. Safe for all transport.

Section 15: Regulatory information

Irritating to eyes, respiratory system and skin. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing.

Section 16: Other Information

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