Revision Date: 1-June-2016



1.Product and Company Information

| ProteinExt TM Mammalian Nuclear and Cytoplasmic Protein |
|--|
| Extraction Kit |
| DE201 |
| TransGen Biotech Co., Ltd. |
| +86-400-898-0321 |
| +86-10-57815011 |
| trans@transgen.com.cn |
| |

The following TransGen products are included:

Cytoplasmic Protein Extraction Buffer I (CPEB I) Cytoplasmic Protein Extraction Buffer II (CPEB II) Nuclear Protein Extraction Buffer (NPEB) $ProteinSafe^{TM}$ Protease Inhibitor Cocktail, EDTA-free (100×)

Revision Date: 1-June-2016



1.Product and Company Information

| Product Name Cat. No. | Cytoplasmic Protein Extraction Buffer I (CPEB I) DE201-0101 |
|--------------------------|--|
| Company | TransGen Biotech Co., Ltd. |
| Technical Phone | +86-400-898-0321 |
| Fax | +86-10-57815011 |
| E-mail Address | trans@transgen.com.cn |

2 COMPOSITION/INFORMATION ON INGREDIENTS Hazardous/

Non-hazardous

Components

Phosphate-buffered saline (10%)

3 HAZARDS IDENTIFICATION

Physical/chemical

| Hazards | The products contain no substances which at their given concentration are considered to be hazardous to human. |
|--|--|
| Potential health effects | Not available |
| Eyes | Not available |
| Skin | Not available |
| Inhalation | Not available |
| Ingestion | Not available |
| Other Toxic Effects on Humans Carcinogenic effects | Not available Not available Not available |
| Mutagenic effects | NOT available |

| Reproduction toxicity | Not available |
|-----------------------|---------------|
| Teratogenic effects | Not available |

4 FIRST AID MEASURE

| Inhalation | If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical attention. |
|-----------------------|--|
| Ingestion | Do not induce vomiting unless directed to do so by medical personal. If large quantities of this material are swallowed, call a physician immediately. |
| Skin contact | In case of contact, immediately flush the skin with plenty of water Remove contaminated clothes and shoes. |
| Eye contact | In case of contact, immediately flush eyes with plenty of water for at least 15 min. get medical attention. |
| Aggravating condition | Prolonged exposure is not known for aggravate medical condition. |

5 FIRE FIGHTING MEASURES

| Flammability | May be combustible at high temperature. |
|-----------------------------|---|
| Extinguishing media | |
| Suitable | Use dry chemical for small fire, for large fire, use water spray, fog or foam. Do not use water jet. |
| Hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |
| Fire-fighting procedure | Fire fighter should ware positive pressure self-contained breathing. Apparatus and full turnout gear. |
| Protecting of fire-fighters | Be sure to use approved/certified respirator or equipment |

6 ACCIDENTAL RELEASE MEASURE

| Personal Precautions | Splash goggles, full suit, boots and gloves. Consult a specialist. |
|----------------------|---|
| Spill and leak | Use appropriate tools to put the spilled solid in a convenient waste disposal container. |

7 HANDLING AND STORAGE

| Handling | Keep away from heat and source of ignition. |
|----------|---|
| | Empty containers pose a fire risk. |
| Storage | Keep container tightly closed and store at |
| | room temperature. |

8 EXPOSURE CONTROL / PERSONAL PROTECTION

| Engineering measures | Use process enclosure, local exhaust ventilation, or other Engineering controls to keep airborne level recommended limits. |
|---|--|
| Hygiene measures | Wash hands after handling the materials. |
| Personal protective Equipment Skin and body Eyes | Lab coat Safety glasses Safety glasses |

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state Color Molecular Solubility Flash point Explosive properties liquid Not available Weight Not available Not available Not available Not available

10 STABILITY AND REACTIVITY

| Stability | The product is stable |
|-----------------------|--|
| Conditions to avoid | Not available |
| Products of hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |

11 TOXICOLOGICAL INFORMATION

| RTECS # | N/A |
|-----------------------|--|
| Local effects | |
| Skin irritation | Not available |
| Acute toxicity | LD50 and LC50: Not available |
| Chronic toxicity | Repeated or prolonged exposure is not known for aggravate medical condition. |
| Other Toxic Effects | |
| on humans | Not available |
| Carcinogenic effects | Not available |
| Mutagenic effects | Not available |
| Reproduction toxicity | Not available |
| Teratogenic effects | Not available |

12 ECOLOGICAL INFORMATION

| Ecotoxicity | Not available |
|---------------------|---------------|
| Toxicity of product | |

| of biodegradation | The product itself and its degradation products are not |
|-------------------|---|
| | toxic. |

13 DISPOSAL CONSIDERATIONS

Methods of disposal Waste must be disposed of in accordance with federal, state, and local control regulations.

14 TRANSPORT INFORMATION IATA

Proper shipping name

Hazard class Subsidiary class Packing group Un-no Not classified as dangerous in the meaning of transport regulations. Not available Not available Not available Not available Not available

15 REGULATORY INFORMATION

| EU regulation | |
|---------------------------|--|
| Risk phrases | This product is not classified according to the EU regulation. |
| U.S. Federal Regulations | This product is not regulated by SARA 313 This product does not contain HAPs. |
| HCS Classification | Not-controlled under the HCS (United States) |
| State regulations | |
| California Proposition 65 | This product does not contain chemicals listed under proposition 65 |
| WHMIS (Canada) | Non-controlled |

16 OTHER INFORMATION

This product is sold for research use only. It is not intended for human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household or cosmetic use. A technically competent individual must supervise the use of this product. The above product information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information is to be used as a guide and shall not be taken as being all inclusive. All materials and mixtures may be present unknown hazards and should be used with caution. Since Invent Biotechnologies Inc. cannot control the actual methods or conditions of use, the company shall not held responsible for any damages or losses resulting from contact with the product described herein. The information in this msds does not constitute a warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.

Revision Date: 1-June-2016



1.Product and Company Information

| Product Name | Cytoplasmic Protein Extraction Buffer II (CPEB II) |
|-----------------|--|
| Cat. No. | DE201-0102 |
| Company | TransGen Biotech Co., Ltd. |
| Technical Phone | +86-400-898-0321 |
| Fax | +86-10-57815011 |
| E-mail Address | trans@transgen.com.cn |

2 COMPOSITION/INFORMATION ON INGREDIENTS Hazardous/

Non-hazardous

Components

Phosphate-buffered saline (10%)

3 HAZARDS IDENTIFICATION

Physical/chemical

| Hazards | The products contain no substances which at their given concentration are considered to be hazardous to human. |
|--------------------------|--|
| Potential health effects | Not available |
| Eyes | Not available |
| Skin | Not available |
| Inhalation | Not available |
| Ingestion | Not available |

| Other Toxic Effects on | |
|------------------------|---------------|
| Humans | Not available |
| Carcinogenic effects | Not available |
| Mutagenic effects | Not available |

| Reproduction toxicity | Not available |
|-----------------------|---------------|
| Teratogenic effects | Not available |

4 FIRST AID MEASURE

| Inhalation | If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical attention. |
|-----------------------|--|
| Ingestion | Do not induce vomiting unless directed to do so by medical personal. If large quantities of this material are swallowed, call a physician immediately. |
| Skin contact | In case of contact, immediately flush the skin with plenty of water Remove contaminated clothes and shoes. |
| Eye contact | In case of contact, immediately flush eyes with plenty of water for at least 15 min. get medical attention. |
| Aggravating condition | Prolonged exposure is not known for aggravate medical condition. |

5 FIRE FIGHTING MEASURES

| Flammability | May be combustible at high temperature. |
|-----------------------------|---|
| Extinguishing media | |
| Suitable | Use dry chemical for small fire, for large fire, use water spray, fog or foam. Do not use water jet. |
| Hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |
| Fire-fighting procedure | Fire fighter should ware positive pressure self-contained breathing. Apparatus and full turnout gear. |
| Protecting of fire-fighters | Be sure to use approved/certified respirator or equipment |

6 ACCIDENTAL RELEASE MEASURE

| Personal Precautions | Splash goggles, full suit, boots and gloves. Consult a |
|----------------------|--|
| Spill and leak | specialist. Use appropriate tools to put the spilled solid in a convenient waste disposal container. |

7 HANDLING AND STORAGE

| Handling | Keep away from heat and source of ignition. |
|----------|---|
| | Empty containers pose a fire risk. |
| Storage | Keep container tightly closed and store at |
| | room temperature. |

8 EXPOSURE CONTROL / PERSONAL PROTECTION

| Engineering measures | Use process enclosure, local exhaust ventilation, or other Engineering controls to keep airborne level recommended limits. |
|---|--|
| Hygiene measures | Wash hands after handling the materials. |
| Personal protective Equipment Skin and body Eyes | Lab coat Safety glasses Safety glasses |

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state Color Molecular Solubility Flash point Explosive properties liquid Not available Weight Not available Not available Not available Not available

10 STABILITY AND REACTIVITY

| Stability | The product is stable |
|-----------------------|--|
| Conditions to avoid | Not available |
| Products of hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |

11 TOXICOLOGICAL INFORMATION

| RTECS # | N/A |
|-----------------------|--|
| Local effects | |
| Skin irritation | Not available |
| Acute toxicity | LD50 and LC50: Not available |
| Chronic toxicity | Repeated or prolonged exposure is not known for aggravate medical condition. |
| Other Toxic Effects | |
| on humans | Not available |
| Carcinogenic effects | Not available |
| Mutagenic effects | Not available |
| Reproduction toxicity | Not available |
| Teratogenic effects | Not available |

12 ECOLOGICAL INFORMATION

| Ecotoxicity | Not available |
|---------------------|---------------|
| Toxicity of product | |

| of biodegradation | The product itself and its degradation products are not |
|-------------------|---|
| | toxic. |

13 DISPOSAL CONSIDERATIONS

Methods of disposal Waste must be disposed of in accordance with federal, state, and local control regulations.

14 TRANSPORT INFORMATION IATA

Proper shipping name

Hazard class Subsidiary class Packing group Un-no Not classified as dangerous in the meaning of transport regulations. Not available Not available Not available Not available

15 REGULATORY INFORMATION

| EU regulation | |
|---|--|
| Risk phrases | This product is not classified according to the EU regulation. |
| U.S. Federal Regulations | This product is not regulated by SARA 313 This product does not contain HAPs. |
| HCS Classification State regulations | Not-controlled under the HCS (United States) |
| California Proposition 65 | This product does not contain chemicals listed under proposition 65 |
| WHMIS (Canada) | Non-controlled |

16 OTHER INFORMATION

This product is sold for research use only. It is not intended for human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household or cosmetic use. A technically competent individual must supervise the use of this product. The above product information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information is to be used as a guide and shall not be taken as being all inclusive. All materials and mixtures may be present unknown hazards and should be used with caution. Since Invent Biotechnologies Inc. cannot control the actual methods or conditions of use, the company shall not held responsible for any damages or losses resulting from contact with the product described herein. The information in this msds does not constitute a warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.

Revision Date: 1-June-2016



1.Product and Company Information

| Product Name | Nuclear Protein Extraction Buffer (NPEB) |
|-----------------|--|
| Cat. No. | DE201-0103 |
| Company | TransGen Biotech Co., Ltd. |
| Technical Phone | +86-400-898-0321 |
| Fax | +86-10-57815011 |
| E-mail Address | trans@transgen.com.cn |

2 COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous/

Non-hazardous

Components

Phosphate-buffered saline (10%)

3 HAZARDS IDENTIFICATION

Physical/chemical

| Hazards | The products contain no substances which at their given concentration are considered to be hazardous to human. |
|---|--|
| Potential health effects | Not available |
| Eyes | Not available |
| Skin | Not available |
| Inhalation | Not available |
| Ingestion | Not available |
| Other Toxic Effects on Humans Carcinogenic effects Mutagenic effects | Not available Not available Not available |
| | |

| Reproduction toxicity | Not available |
|-----------------------|---------------|
| Teratogenic effects | Not available |

4 FIRST AID MEASURE

| Inhalation | If inhaled, remove to fresh air. If breathing is difficult, give oxygen and seek medical attention. |
|-----------------------|--|
| Ingestion | Do not induce vomiting unless directed to do so by medical personal. If large quantities of this material are swallowed, call a physician immediately. |
| Skin contact | In case of contact, immediately flush the skin with plenty of water Remove contaminated clothes and shoes. |
| Eye contact | In case of contact, immediately flush eyes with plenty of water for at least 15 min. get medical attention. |
| Aggravating condition | Prolonged exposure is not known for aggravate medical condition. |

5 FIRE FIGHTING MEASURES

| Flammability | May be combustible at high temperature. |
|-----------------------------|---|
| Extinguishing media | |
| Suitable | Use dry chemical for small fire, for large fire, use water spray, fog or foam. Do not use water jet. |
| Hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |
| Fire-fighting procedure | Fire fighter should ware positive pressure self-contained breathing. Apparatus and full turnout gear. |
| Protecting of fire-fighters | Be sure to use approved/certified respirator or equipment |

6 ACCIDENTAL RELEASE MEASURE

| Personal Precautions | Splash goggles, full suit, boots and gloves. Consult a specialist. |
|----------------------|---|
| Spill and leak | Use appropriate tools to put the spilled solid in a convenient waste disposal container. |

7 HANDLING AND STORAGE

| Handling | Keep away from heat and source of ignition. |
|----------|---|
| | Empty containers pose a fire risk. |
| Storage | Keep container tightly closed and store at |
| | room temperature. |

8 EXPOSURE CONTROL / PERSONAL PROTECTION

| Engineering measures | Use process enclosure, local exhaust ventilation, or other Engineering controls to keep airborne level recommended limits. |
|---|--|
| Hygiene measures | Wash hands after handling the materials. |
| Personal protective Equipment Skin and body Eyes | Lab coat Safety glasses Safety glasses |

9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state Color Molecular Solubility Flash point Explosive properties liquid Not available Weight Not available Not available Not available Not available

10 STABILITY AND REACTIVITY

| Stability | The product is stable |
|-----------------------|--|
| Conditions to avoid | Not available |
| Products of hazardous | |
| Decomposition | These products are carbon oxides (CO, CO2), nitrogen oxides etc. |

11 TOXICOLOGICAL INFORMATION

| RTECS # | N/A |
|-----------------------|---|
| Local effects | |
| Skin irritation | Not available |
| Acute toxicity | LD50 and LC50: Not available |
| Chronic toxicity | Repeated or prolonged exposure is not known for |
| | aggravate medical condition. |
| Other Toxic Effects | |
| on humans | Not available |
| Carcinogenic effects | Not available |
| Mutagenic effects | Not available |
| Reproduction toxicity | Not available |
| Teratogenic effects | Not available |
| - | |

12 ECOLOGICAL INFORMATION

| Ecotoxicity | Not available |
|---------------------|---------------|
| Toxicity of product | |

| of biodegradation | The product itself and its degradation products are not |
|-------------------|---|
| | toxic. |

13 DISPOSAL CONSIDERATIONS

Methods of disposal Waste must be disposed of in accordance with federal, state, and local control regulations.

14 TRANSPORT INFORMATION IATA

Proper shipping name

Hazard class Subsidiary class Packing group Un-no Not classified as dangerous in the meaning of transport regulations. Not available Not available Not available Not available

15 REGULATORY INFORMATION

| EU regulation | |
|---------------------------|--|
| Risk phrases | This product is not classified according to the EU regulation. |
| U.S. Federal Regulations | This product is not regulated by SARA 313 This product does not contain HAPs. |
| HCS Classification | Not-controlled under the HCS (United States) |
| State regulations | |
| California Proposition 65 | This product does not contain chemicals listed under proposition 65 |
| WHMIS (Canada) | Non-controlled |

16 OTHER INFORMATION

This product is sold for research use only. It is not intended for human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household or cosmetic use. A technically competent individual must supervise the use of this product. The above product information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information is to be used as a guide and shall not be taken as being all inclusive. All materials and mixtures may be present unknown hazards and should be used with caution. Since Invent Biotechnologies Inc. cannot control the actual methods or conditions of use, the company shall not held responsible for any damages or losses resulting from contact with the product described herein. The information in this msds does not constitute a warranty, express or implied, including any implied warranty of merchantability or fitness for any particular purpose.

Revision Date: 1-June-2016

1. Product and Company Information

| Product Name | <i>ProteinSafe</i> TM Protease Inhibitor Cocktail, EDTA-free (100×) |
|-----------------|--|
| Cat. No. | DI101-02 |
| Company | TransGen Biotech Co., Ltd. |
| Technical Phone | +86-400-898-0321 |
| Fax | +86-10-57815011 |
| E-mail Address | trans@transgen.com.cn |

2. Hazards Identification

GHS - Classification

Signal Word:



| Η | ealth hazard | |
|---|---------------------------|------------|
| | Respiratory sensitisation | Category 1 |

Hazard statements: H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements:

P304 + P340 - IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician

P284 - Wear respiratory protection

Potential health effects

- **Eyes** May cause eye irritation with susceptible persons.
- **Skin** May cause skin irritation in susceptible persons.
- **Inhalation** May be harmful by inhalation.
- **Ingestion** May be harmful if swallowed.

3. Composition

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

4. First Aid Measures

| General advice | In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). |
|----------------|--|
| Eye contact | Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician. |
| Skin contact | Wash off immediately with plenty of water for at least 15 minutes. |
| Inhalation | Move to fresh air. |
| Ingestion | Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. |

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

| Suitable extinguishing media | Water spray. Carbon dioxide (CO ₂). Foam. Druchemical | У |
|---|---|---|
| Special protective equipment for firefighters | Wear self-contained breathing apparatus and protective suit. | t |

6. Accidental Release Measures

| Personal precautions | Use personal protective equipment. |
|---------------------------|---|
| Methods for cleaning up | Soak up with inert absorbent material. |
| Environmental precautions | Prevent further leakage or spillage if safe to do so. |

7. Handling and Storage

| Handling | Always wear recommended Personal Protective Equipment. No special handling advice required. |
|----------|---|
| Storage | Keep in a dry, cool and well-ventilated place. Keep |

8. Exposure Controls/Personal Protection

Exposure limits: We are not aware of any national exposure limit.

9. Physical and Chemical Properties

General Information

Form: liquid

Water solubility: soluble

Others: No information available.

10.Stability and Reactivity

| Stability | Stable under normal conditions |
|--------------------|--------------------------------|
| Materials to avoid | No information available |
| Polymerization | None under normal processing. |

11.Toxicological Information

| Acute toxicity | Not hazardous | |
|----------------|---------------|--|
| | | |

| Principle | Routes | of | Exposure/ | |
|-------------|-------------|-----|-----------|--|
| Potential H | Iealth effe | cts | | |
| Eyes | | | | May cause eye irritation with susceptible persons. |
| Skin | | | | May cause skin irritation in susceptible persons. |
| Inhalation | | | | May be harmful by inhalation. |
| Ingestion | | | | May be harmful if swallowed. |
| Carcinoger | nic effects | | | None. |
| Mutagenic | effects | | | None. |
| Reproduct | ive toxicit | У | | None. |

12.Ecological Information

| Ecotoxicity effects | No information available. |
|---------------------|---------------------------|
| Mobility | No information available. |
| Biodegradation | No information available. |
| Bioaccumulation | No information available. |

13.Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

| IATA | |
|----------------------|---|
| Proper shipping name | Not classified as dangerous in the meaning of transport regulations |
| Hazard class | none |
| Subsidiary Class | none |
| Packing group | none |
| UN-No | none |

15. Regulatory Information

International Inventories

Complies

16. Other Information

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE