

Material Safety Data Sheet

Revision Date: 1-June-2016



Product and Company Information

Product Name	<i>TransScript</i> [®] Green miRNA Two-Step qRT-PCR SuperMix
Cat. No.	AQ202
Company	TransGen Biotech Co., Ltd.
Technical Phone	+86-400-898-0321
Fax	+86-10-57815011
E-mail Address	trans@transgen.com.cn

The following TransGen products are included:

TransScript[®] miRNA RT Enzyme Mix

2×TS miRNA Reaction Mix

Universal miRNA qPCR Primer

2×*PerfectStart*[™] Green qPCR SuperMix

Passive Reference Dye (50×)

RNase-free Water

Material Safety Data Sheet



Revision Date: 1-June-2016

1. Product and Company Information

Product Name *TransScript*[®] miRNA RT Enzyme Mix
Cat. No. AT351-0101
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

The product contains no substances which at their given concentration, are considered to be hazardous to health

3. Composition

This kit consist of Hazardous/Non-hazardous Components

Chemical Name	CAS-No	Weight %
Glycerol	56-81-5	>50

Other components:

Components not listed here are not hazardous or their concentrations do not exceed the limits specified in the OSHA Hazard Communication Standard 29 CFR 1910.1200.

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. Not an expected route of exposure.

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical

Special protective equipment for firefighters Wear self-contained breathing apparatus and protective suit.

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

Precautions for safe handling Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage Keep in properly labeled containers.

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Glycerol	15 mg/m ³ total dust 5 mg/m ³ respirable fraction	none	10 mg/m ³	none

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
Hazardous decomposition	No information available
Products polymerization	Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity - Component Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Glycerol	12600 mg/kg (Rat)	10 g/kg (Rabbit)	570 mg/m ³ (Rat)

Principle Routes of Exposure/ Potential

Health effects

Eyes No information available.

Skin No information available.

Inhalation No information available.

Ingestion No information available.

Carcinogenic effects No information available.

Mutagenic effects No information available.

Reproductive toxicity No information available.

Sensitization No information available.

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
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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

End of Safety Data Sheet

Material Safety Data Sheet

Revision Date: 1-June-2016



1. Product and Company Information

Product Name	2×TS miRNA Reaction Mix
Cat. No.	AT351-0102
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

Not hazardous

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. Not an expected route of exposure.
Notes to physician	Treat symptomatically.

5. Fire-Fighting Measures

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

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

Precautions for safe handling	Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	Keep in a dry, cool and well-ventilated place.

8. Exposure Controls/Personal Protection

Exposure limits	We are not aware of any national exposure limit.
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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
Hazardous decomposition	No information available
Products polymerization	Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity	Not hazardous
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Principle Routes of Exposure/ Potential

Health effects

Eyes

May cause eye irritation with susceptible persons.

Skin

May cause skin irritation with susceptible persons.

Inhalation

May be harmful by inhalation.

Ingestion

May be harmful if swallowed.

Carcinogenic effects

No information available.

Mutagenic effects

No information available.

Reproductive toxicity

No information available.

Sensitization

No information available.

12. Ecological Information

Ecotoxicity effects No information available.

Mobility No information available.

Biodegradation Inherently biodegradable.

Bioaccumulation Does not bioaccumulate.

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
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16. Other Information

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Material Safety Data Sheet

Revision Date: 1-June-2016



1. Product and Company Information

Product Name	Universal miRNA qPCR Primer (10 μ M)
Cat. No.	AT351-0103
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

Not hazardous

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. Not an expected route of exposure.
Notes to physician	Treat symptomatically.

5. Fire-Fighting Measures

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

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

Precautions for safe handling	Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.
Conditions for safe storage	Keep in a dry, cool and well-ventilated place.

8. Exposure Controls/Personal Protection

Exposure limits	We are not aware of any national exposure limit.
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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
Hazardous decomposition	No information available
Products polymerization	Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity	Not hazardous
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Principle Routes of Exposure/ Potential

Health effects

Eyes	May cause eye irritation with susceptible persons.
Skin	May cause skin irritation with susceptible persons.
Inhalation	May be harmful by inhalation.
Ingestion	May be harmful if swallowed.
Carcinogenic effects	No information available.
Mutagenic effects	No information available.
Reproductive toxicity	No information available.
Sensitization	No information available.

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
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16. Other Information

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End of Safety Data Sheet

Material Safety Data Sheet

Revision Date: 1-June-2016



1. Product and Company Information

Product Name *2×PerfectStart*[™] Green qPCR SuperMix
Cat. No. AQ601
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: Not hazardous

Health Hazard: Not hazardous

Physical Hazards: Not hazardous

Potential Health effects

Eyes May cause eye irritation with susceptible persons.

Skin Components of the product may be absorbed into the body through the skin. May cause skin irritation in susceptible persons.

Inhalation Irritating to respiratory system

Ingestion May be harmful if swallowed.

3. Composition

Chemical Name	CAS-No	Weight %
Dimethyl Sulfoxide	67-68-5	5-10
Glycerol	56-81-5	10-30
SYBR Green I dye	163795-75-3	<0.1

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. Not an expected route of exposure.
Notes to physician	Treat symptomatically.

5. Fire-Fighting Measures

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

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 in properly labeled containers

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Dimethyl Sulfoxide	none	none	none	none
Glycerol	10 mg/m ³	none	10 mg/m ³	none

SYBR Green I dye	none	none	none	none
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9. Physical and Chemical Properties

General Information

Form: liquid

Color: transparent

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

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Dimethyl Sulfoxide	= 14500 mg/kg (Rat)	no data available	no data available
Glycerol	= 12600 mg/kg Oral	no data available	no data available
SYBR Green I dye	no data available	no data available	no data available

Principle Routes of Exposure/
Potential Health effects

Eyes May cause eye irritation with susceptible persons.

Skin Components of the product may be absorbed into the body through the skin May cause skin irritation in susceptible persons.

Inhalation Irritating to respiratory system.

Ingestion May be harmful if swallowed Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Carcinogenic effects none.

Mutagenic effects Sybr Green I Gel Stain is classified by the European Union as a mutagen of category 3 Mutation Data: Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA102), positive with

	metabolic activation; Histidine reverse gene mutation, Ames assay, Salmonella typhimurium (TA98, TA102), positive without metabolic activation.
Reproductive toxicity	none
Sensitization	none

12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	See log Pow
Biodegradation	No information available.
Bioaccumulation	No information available.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Dimethyl Sulfoxide 67-68-5	Skeletonema costatum EC50=12350 - 25500 mg/L (96 h)	Daphnia species EC50=7000 mg/L (24 h)			logPow-2.03
Glycerol 56-81-5		Daphnia species EC50=500 mg/L (24 h)			logPow-1.76

13. Disposal Considerations

Dispose of in accordance with local regulations.

14. Transport Information

IATA	Not dangerous goods
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

Chemical Name	TSCA
Dimethyl Sulfoxide	Listed

Glycerol	-
SYBR Green I dye	-

16. Other Information

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End of Safety Data Sheet

Material Safety Data Sheet



Revision Date: 1-June-2016

1. Product and Company Information

Product Name RNase-free Water
Cat. No. GI201-01
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

The product contains no substances which at their given concentration, are considered to be hazardous to health

3. Composition

This kit consist of Hazardous/Non-hazardous Components

Chemical Name	CAS-No	Weight %
Water	7732-18-5	100

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. Not an expected route of exposure.

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

Suitable extinguishing media Water spray. Carbon dioxide (CO₂). Foam. Dry chemical

Special protective equipment for firefighters Wear self-contained breathing apparatus and protective suit.

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

Precautions for safe handling Avoid contact with skin, eyes and clothing. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage Keep in a dry, cool and well-ventilated place.

8. Exposure Controls/Personal Protection

Exposure limits:

Chemical Name	OSHA PEL (TWA)	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Water	none	none	none	none

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
Hazardous decomposition	No information available
Products polymerization	Hazardous polymerisation does not occur

11. Toxicological Information

Acute toxicity - Component Information

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Water	none	none	none

Principle Routes of Exposure/ Potential

Health effects

Eyes

May cause eye irritation with susceptible persons.

Skin

May cause skin irritation with susceptible persons.

Inhalation

May be harmful by inhalation.

Ingestion

May be harmful if swallowed.

Carcinogenic effects

No information available.

Mutagenic effects

No information available.

Reproductive toxicity

No information available.

Sensitization

No information available.

12. Ecological Information

Ecotoxicity effects	No information available.
Mobility	No information available.
Biodegradation	Inherently biodegradable.
Bioaccumulation	Does not bioaccumulate.

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
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16. Other Information

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End of Safety Data Sheet