



## Material Safety Data Sheet

### 1 PRODUCT AND COMPANY IDENTIFICATION

Product Name	TARget Clone, TARget Clone -Plus-
Product Code	TAK-101,-201
SUPPLIER	
Name	Life Science Operations Department TOYOBO Co., Ltd.
Address	2-8, Dojima-Hama 2-chome Kita-Ku, OSAKA 530-8230, JAPAN
Telephone No.	+81-6-6348-3786
Fax No.	+81-6-6348-3833

### 2 COMPOSITION / INFORMATION ON INGREDIENTS

Parts Name	pTA2 Vector	2x Ligation Buffer	T4 DNA Ligase	A-attachment Mix (TAK-201 only)
Chemical Nature	Solution	Solution	Solution	Solution
Components				
Chemical Name	Tris (hydroxymethyl) aminomethane	Tris (hydroxymethyl) aminomethane	Tris (hydroxymethyl) aminomethane	Tris (hydroxymethyl) aminomethane
CAS No.	77-86-1	77-86-1	77-86-1	77-86-1
Concentration	50mM or less	50mM or less	50mM or less	50mM or less
Chemical Name	DNA	Magnesium Chloride	Enzyme	Enzyme&Antibody
CAS No.	-	7791-18-6	-	-
Concentration	<1%	50mM or less	<1%	<1%
Chemical Name		Adenosine Triphosphate(ATP)	Glycerol	Glycerol
CAS No.		51963-61-3	56-81-5	56-81-5
Concentration		50mM or less	50%	50%

### 3 HAZARDS IDENTIFICATION

Most Important Hazards Few adverse human health effects are anticipated.

Specific Hazards Not available

### 4 FIRST-AID MEASURES

Inhalation	Remove to fresh air. Consult a physician immediately.
Skin Contact	Immediately wash off with plenty of water. Consult a physician immediately.
Eye Contact	Wash off with running water for more than 15 minutes. Consult a physician immediately.
Ingestion	Swill tepid water or milk for immediate vomiting. These treatments are emergency first aid only. Consult a physician immediately.



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### 5 FIRE-FIGHTING MEASURES

Extinguishing Media	Water spray, dry chemical powder, or carbon dioxide etc.
Protection of Firefighters	The protection implement for breathing is worn in case of a big fire.

### 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear protective gear. Avoid an eye, the skin and clothes contact.
Environmental Precautions	Although the influence on environment is small, it does not discard into environment.

Methods for Cleaning up	It wipes off in cloth and paper promptly.
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### 7 HANDLING AND STORAGE

#### HANDLING

Technical Measures	Wear protective gear, avoiding contact on eye, skin and clothes. Equipment of eyewashing and washing is installed in near.
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Precautions	None specified
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Safe Handling Advice	None specified
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#### STORAGE

Technical Measures	Store in the sampling tube.
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Storage Conditions	Store at about 4°C
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Incompatible Products	None specified
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Packaging Materials	Use initial container for the product
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### 8 EXPOSURE CONTROLS/ PERSONAL PROTECTION

ENGINEERING MEASURES	Equipment of eyewashing and washing is installed in near. Set local ventilation equipment.
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#### PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection	Self contained breathing apparatus
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Hand Protection	Protecting glove(rubber glove etc.)
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Eye Protection	Safety goggles
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Skin and Body Protection	Long sleeve working wear
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### 9 PHYSICAL AND CHEMICAL PROPERTIES

Parts Name	pTA2 Vector 2x Ligation Buffer T4 DNA Ligase A-attachment Mix
Physical State	Liquid
Colour	colourless
Odor	None
pH	6 - 9
Boiling Point	About 100 °C
Decomposition Temperature	No information available
Flash Point	No information available
Density	1.0-1.2 g/cm <sup>3</sup>
Solubility	Easily miscible with water

### 10 STABILITY AND REACTIVITY

Stability	Stable under normal handling and storage conditions
Possible Hazardous Reactions	None
Conditions to Avoid	Not available
Material to Avoid	Strong acids, strong alkalines and strong oxidizers



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### 11 TOXICOLOGICAL INFORMATION

Acute Toxicity	Not available
Local Effects	Not available

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### 12 ECOLOGICAL INFORMATION

Mobility	Not available
Persistence/Degradability	Not available
Bioaccumulation	Not available

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### 13 DISPOSAL CONSIDERATIONS

Waste from Residues	Dispose of in accordance with all applicable local and national laws and regulations.
Contaminated Packaging	Dispose of in the same way as the material.

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### 14 TRANSPORT INFORMATION

International Regulations	
UN Classification Number	Not classified
Specific Precautions	Follow all of the laws and regulations in your respective country. To prevent packages from breaking, handle with care.

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### 15 REGULATORY INFORMATION

Follow all of the laws and regulations in your country.

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### 16 OTHER INFORMATION

Notice	The information in this MSDS, to the best of our knowledge, is accurate and correct. However, TOYOBO makes no warranty and assumes no liability whatsoever in connection with any use of this information. The MSDS is subject to revision as new information becomes available.
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