

Safety Data Sheet

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: CBA-5117
 Product Name: Cellular Autophagy ELISA Kit (LC3-II Quantitation)
 Recommended Use: Laboratory Research Reagents

MANUFACTURER:

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SECTION 2. HAZARDS IDENTIFICATION

100X Cytosolic LC3 Removal Reagent (Part No. 51171A): One 100 µL tube

Classification:


Flammable liquids, Category 4 (H227)
 Acute toxicity, Oral, Category 4 (H302)

Pictogram	
Signal Word	Warning
Hazard Statements: Combustible liquid (H227), Harmful if swallowed (H302)	
Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER / doctor if you feel unwell (P301 + P312), Rinse mouth (P330), In case of fire: use dry sand, dry chemical or alcohol-resistant foam for extinction (P370 + P378), Store in a well-ventilated place and keep cool (P403 + P235), Dispose of contents/container to an approved waste disposal plant (P501).	

2X Fixing Solution (Part No. 51172B): One 10 mL bottle

Classification:


Flammable solids, Category 2 (H228)
 Acute toxicity, Oral, Category 4 (H302)
 Acute toxicity, Inhalation, Category 4 (H332)
 Skin irritation, Category 2 (H315)
 Serious eye damage, Category 1 (H318)
 Skin sensitization, Category 1 (H317)
 Carcinogenicity, Category 2, (H351)
 Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)
 Acute aquatic toxicity, Category 3, (H402)
 Chronic aquatic toxicity, Category 3 (H412)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Flammable solid (H228), Harmful if swallowed or inhaled (H302 + H332), Causes skin irritation (H315), May cause an allergic skin reaction (H317), Causes serious eye damage (H318), May cause respiratory irritation (H335), Suspected of causing cancer (H351), Harmful to aquatic life with long lasting effects (H412).</p>	
<p>Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting equipment (P241), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Contaminated work clothing should not be allowed out of the workplace (P272), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell (P301 + P312), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing (P304 + P340), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305 + P351 + P338), Immediately call a POISON CENTER or doctor /physician (P310), Rinse mouth (P330), If skin irritation or rash occurs: Get medical advice/attention (P333 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

Anti-LC3 Antibody (Part No. 51174C): One 10 µL tube

Classification:


Acute toxicity, Oral, Category 2 (H300)
 Acute toxicity, Dermal, Category 1 (H310)
 Specific target organ toxicity - repeated exposure, Oral, Category 2 (H373)
 Acute aquatic toxicity, Category 1 (H400)
 Chronic aquatic toxicity, Category 1 (H410)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Fatal if swallowed or in contact with skin (H300 + H310), May cause damage to organs (Brain) through prolonged or repeated exposure if swallowed (H373), Very toxic to aquatic life with long lasting effects (H410),</p>	
<p>Precautionary Statements: Do not breathe dust/fume/gas/mist/vapors/spray (P260), Do not get in eyes, on skin, or on clothing (P262), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: immediately call a POISON CENTER / doctor. Rinse mouth (P301 + P310 + P330), IF ON SKIN: gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor (P302 + P350 + P310), Get medical advice/attention if you feel unwell (P314), Take off contaminated clothing and wash before reuse (P362), Collect spillage (P391), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

Assay Diluent (Part No. 310804): One 50 mL bottle
10X Wash Buffer (Part No. 310806): One 100 mL bottle

Classification:


Acute toxicity, Oral, Category 2 (H300)
 Acute toxicity, Inhalation, Category 2 (H330)
 Acute toxicity, Dermal, Category 1 (H310)
 Specific target organ toxicity - repeated exposure, Oral, Category 2 (H373)
 Acute aquatic toxicity, Category 1 (H400)
 Chronic aquatic toxicity, Category 1 (H410)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Fatal if swallowed, in contact with skin or if inhaled (H300 + H310 + H330), May cause damage to organs through prolonged exposure (H373), Very toxic to aquatic life with long lasting effects (H410).</p>	
<p>Precautionary Statements: Do not breathe dust/fume/gas/mist/vapors/spray (P260), Do not get in eyes, on skin, or on clothing (P262), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), Wear respiratory protection (P284), IF SWALLOWED: immediately call a POISON CENTER / doctor. Rinse mouth (P301 + P310 + P330), IF ON SKIN: gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor (P302 + P350 + P310), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), Get medical advice/attention if you feel unwell (P314), Take off contaminated clothing and wash before reuse (P362), Collect spillage (P391), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

Stop Solution (Part No. 310808): One 12 mL bottle

Classification:

Corrosive to metals, Category 1 (H290)
Skin corrosion, Category 1A (H314)
Serious eye damage, Category 1 (H318)


Pictogram	
Signal Word	Danger
<p>Hazard Statements: May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314).</p>	
<p>Precautionary Statements: Keep only in original container (P234), Wash skin thoroughly after</p>	

handling (P264), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), Absorb spillage to prevent material damage (P390), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).

Cell Stain Solution (Part No. 11002): One Bottle – 10.0 mL

Classification:

- Acute toxicity, Oral, Category 4 (H302)
- Serious eye damage, Category 1 (H318)
- Carcinogenicity, Category 2, (H351)
- Acute aquatic toxicity, Category 1 (H400)
- Chronic aquatic toxicity, Category 2 (H411)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: Harmful if swallowed (H302), Causes serious eye damage (H318), Suspected of causing cancer (H351), Very toxic to aquatic life with long lasting effects (H411).</p>	
<p>Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), Use personal protective equipment as required (P281), IF SWALLOWED: call a POISON CENTER if you feel unwell. Rinse mouth (P301 + P312 + P330), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), IF exposed or concerned: Get medical advice/attention (P308 + P313), Collect spillage (P391), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).</p>	


Extraction Solution (Part No. 11003): One Bottle – 10.0 mL

Classification:

Flammable liquids, Category 3, (H226)

Skin corrosion, Category 1B (H314)

Serious eye damage, Category 1 (H318)

Pictogram	
Signal Word	Danger
Hazard Statements: Flammable liquid and vapor (H226), Causes severe skin burns and eye damage (H314), Causes serious eye damage (H318).	
Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep container tightly closed (P233), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Use only non-sparking tools (P242), Take precautionary measures against static discharge (P243), Wash skin thoroughly after handling (P264), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store in a well-ventilated place. Keep cool (P403 + P235), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

100X Cytosolic LC3 Removal Reagent (Part No. 51171A): One 100 μ L tube

CHEMICAL NAME	CONCENTRATION	CAS #
Proprietary Reagent A	<5%	
DMSO	>95%	67-68-5

2X Fixing Solution (Part No. 51172B): One 10 mL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Formaldehyde	8 %	30525-89-4

Anti-LC3 Antibody (Part No. 51174C): One 10 µL tube

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Azide	15 mM	26628-22-8

Assay Diluent (Part No. 310804): One 50 mL bottle

10X Wash Buffer (Part No. 310806): One 100 mL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Thimerosal	0.02%	54-64-8

Stop Solution (Part No. 310808): One 12 mL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Sulfuric Acid	0.5 N	7664-93-9

Cell Stain Solution (Part No. 11002): One 10 mL Bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Crystal Violet	0.09%	548-62-9

Extraction Solution (Part No. 11003): One 10 mL Bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Acetic Acid	10 %	64-19-7

SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO2

- Special protective equipment: Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, 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. SAFETY HANDLING AND STORAGE

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

SECTION 10. STABILITY AND REACTIVITY

- Stability: no data available
- Reactivity: no data available

- Conditions to avoid: no data available
- Incompatible materials: no data available
- Decomposition products: no data available

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute toxicity
 - Proprietary Reagent A: LD50 Oral >50 mg/kg (rat)
 - DMSO: LD50 Oral - rat - 14.500 mg/kg, LC50 Inhalation - rat - 4 h - 40250 ppm
 - Formaldehyde: LD50 Oral 592 mg/kg (rat), LC50 Inhalation 1.070 mg/m³ 4h (rat), LDLO Dermal 10.000 mg/kg (rat)
 - Thimerosal: LD50 Oral 75 mg/kg (rat); LD50 Subcutaneous 98 mg/kg (rat)
 - Sulfuric Acid: LD50 Oral 2.140 mg/kg (rat); LC50 Inhalation 2 hr, 510 mg/m³ (rat)
 - Crystal Violet: LD50 Oral 96 mg/kg (mouse); LD50 Oral 150 mg/kg (rabbit); LD50 Intraperitoneal 8,9 mg/kg (rat); LD50 Intraperitoneal 5,1 mg/kg (mouse); LD50 Intraperitoneal 5 mg/kg (rabbit); LD50 Intraduodenal 160 mg/kg (rabbit)
 - Acetic acid: LD50 Oral 3.31 mg/kg (rat); LC50 Inhalation 5620 ppm (mouse); LC50 inhalation-4h-11,4 mg/l (rat); LD50 dermal-1.112 mg/kg (rabbit)
- Skin corrosion/irritation
 - Formaldehyde: severe eye irritation (rabbit)
 - Sulfuric Acid: Extremely corrosive and destructive to tissue (rabbit)
 - Crystal Violet: irritating to skin-human
 - All other components: no data available
- Serious eye damage/irritation
 - Formaldehyde: severe eye irritation (rabbit)
 - Thimerosal: Mild eye irritation (rabbit)
 - Sulfuric Acid: Severe eye irritation (rabbit)
 - Acetic acid: Corrosive (rabbit)
 - All other components: no data available
- Respiratory or skin sensitization:
 - Formaldehyde: may cause allergic skin reaction
 - Thimerosal: prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
 - Acetic acid: may cause skin sensitization
 - All other components: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - DMSO: Toxicity to fish: LC50 34.000 mg/l - 96 h (Pimephales promelas), LC50 35.000 mg/l - 96 h (Oncorhynchus mykiss); Toxicity to daphnia and other aquatic invertebrates: EC50 27.500 mg/l (Daphnia pulex); Toxicity to algae: EC50 > 400.000

- mg/l - 96h (*Lepomis macrochirus*) Sodium Deoxycholate: Toxicity to fish: LC50 115 mg/l 48h (*Oryzias latipes*)
- Formaldehyde: Toxicity to daphnia and other aquatic invertebrates: EC5- 42 mg/l 24h (*Daphnia magna*)
- Sulfuric Acid: LC50 42 mg/L in 96 hrs (mosquito fish); mortality NOEC 19.5 mg/L in 96 hrs (rainbow trout); mortality LOEC 4.6 mg/L in 8 days (fathead minnow); growth inhibition LOEC 2.68 mg/L in 6 days (algae)
- Crystal Violet: Toxicity to daphnia and other aquatic invertebrate: EC50-Daphnia magna (Water flea)-0,24 mg/l-48h; Toxicity to algae: *Pseudokirchneriella subcapitata* 0,025-0,8 mg/l 72h
- Acetic acid: LC50 1.0 mg/L in 96 hrs (rainbow trout); EC50 300.82 mg/L in 48 hrs (water flea)
- Mobility: no data available
- Biodegradation:
 - Crystal Violet: not readily biodegradable
 - All other components: no data available
- Bioaccumulation: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

SECTION 14. TRANSPORT INFORMATION - IATA

- Hazard Class: 9
- Subsidiary Class: none
- Packing Group: III
- UN-No: UN3334

- Hazard Class: 9
- Subsidiary Class: none
- Packing Group: III
- UN-No: UN3082

- Hazard Class: 3
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN1170

- Hazard Class: 8
- Subsidiary Class: none
- Packing Group: II
- UN-No: 2796



NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

SECTION 15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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