

Safety Data Sheet

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

Catalog Number: PRB-5204
Product Name: Cas9 (CRISPR Associated Protein 9) ELISA Kit (*S. aureus*)
Recommended Use: Laboratory Research Reagents

MANUFACTURER:

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SECTION 2. HAZARDS IDENTIFICATION

SaCas9 Standard (Part No. 52043D): One 25 µL vial of 25 µg/mL recombinant *S. aureus* Cas9.
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</p>	

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).

100X Anti-SaCas9 Coating Antibody (Part No. 52044D): One 100 µl vial

Biotinylated Anti-SaCas9 Antibody (1000X) (Part No. 52042D): One 10 µL vial

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>	





5X SaCas9 Sample Buffer Diluent (Part No. 52045B): One 20 ml bottle

Classification:

Flammable solids, Category 2 (H228)

Acute toxicity, Oral, Category 4 (H302)


Skin irritation, Category 2 (H315)
 Serious eye damage, Category 1 (H318)
 Acute toxicity, Inhalation, Category 4 (H332)
 Specific target organ toxicity (single exposure) - Respiratory system, Category 3 (H335)
 Acute aquatic toxicity, Category 2 (H401)
 Chronic aquatic toxicity, Category 3 (H412)

Pictogram	   
Signal Word	Danger
<p>Hazard Statements: Flammable (H228), Harmful if swallowed or inhaled (H302 + H332), Causes skin irritation (H315), Causes serious eye damage (H318), May cause respiratory irritation (H335), Toxic to aquatic life (H401), Harmful to aquatic life with long lasting effects (H412).</p>	
<p>Precautionary Statements: 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), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER / doctor if you feel unwell. Rinse mouth (P301 + P312 + P330), IF ON SKIN: wash with plenty of soap and water (P302 + P352), IF INHALED: remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER / doctor if you feel unwell (P304 + P340 + P312), 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 skin irritation occurs: get medical advice/attention (P332 + P313), If eye irritation persists: get medical advice/attention (P337 + 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), 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
Hazard Statements: May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314).	
Precautionary Statements: Keep only in original container (P234), 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), 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).	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

SaCas9 Standard (Part No. 52043D): One 25 µL vial of 25 µg/mL recombinant *S. aureus* Cas9.

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

100X Anti-SaCas9 Coating Antibody (Part No. 52044D): One 100 µl vial

Biotinylated Anti-SaCas9 Antibody (1000X) (Part No. 52042D): One 10 µL vial

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Azide	0.05%	26628-22-8

5X SaCas9 Sample Buffer Diluent (Part No. 52045B): One 20 ml bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Tris	125 mM	77-86-1

Sodium Deoxycholate	5 %	302-95-4
SDS	0.5%	151-21-3
Igepal CA-630	5%	9002-93-1

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

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

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
 - Igepal CA-630: LD50 Oral 4.500 mg/kg (rat)
 - SDS: LD50 Oral 1.288 mg/kg (rat); LC50 Inhalation >3.9 mg/m³ (rat); LD 50 Dermal 580 mg/kg (rabbit)
 - Sodium Azide: no data available
 - Sodium Deoxycholate: no data available
 - Sulfuric Acid: LD50 Oral 2.140 mg/kg (rat); LC50 Inhalation 2 hr, 510 mg/m³ (rat)
 - Thimerosal: LD50 Oral 75 mg/kg (rat); LD50 Subcutaneous 98 mg/kg (rat)
 - Tris: LD50 Oral 5.900 mg/kg (rat)
- Skin corrosion/irritation
 - SDS: Irritation (rabbit)
 - Sulfuric Acid: Extremely corrosive and destructive to tissue (rabbit)
 - All other hazardous components: no data available
- Serious eye damage/irritation
 - Igepal CA-630: Risk of serious damage to eyes (rabbit)

- SDS: Risk of serious damage (rabbit)
 - Sodium Azide: no data available
 - Sulfuric Acid: Severe eye irritation (rabbit)
 - Thimerosal: Mild eye irritation (rabbit)
- Respiratory or skin sensitization
 - SDS: May cause respiratory irritation
 - Thimerosal: prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals
 - All other hazardous components: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - SDS: LC50 3.6 mg/L in 96 hrs (rainbow trout); 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)
 - Sodium Azide: no data available, harmful to aquatic life with long lasting effects.
 - Sodium Deoxycholate: Toxicity to fish: LC50 115 mg/l 48h (*Oryzias latipes*)
 - Thimerosal: no data available
 - 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)
- Mobility: no data available
- Biodegradation: 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: 8
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN2796

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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