SANTA CRUZ BIOTECHNOLOGY, INC.

GenoCruz™ PCR Purification Kit: sc-45047

PRODUCT

The GenoCruz™ PCR Purification Kit is based on specially activated silica particles (GenoCruz™ PCR Matrix). The kit is designed for direct purification of PCR products. In contrast to the GenoCruz™ GEL Extraction Kit, GenoCruz™ PCR will not bind DNA fragments <100 bp (primer minus dimers) due to a larger pore size of the silica matrix. Each kit contains sufficient materials for 100 preparations when used as directed.

The GenoCruz™ PCR Purification Kit contains:

Reagent C (Binding Buffer); 1x solution, 100 ml

GenoCruz™ PCR Matrix (DNA binding substrate); 50% suspension, 1 ml

Reagent D (Wash Buffer); 5x solution, 20 ml

Reagent E (Elution Buffer); 1x solution, 6 ml

PCR PURIFICATION PROTOCOL

Dilute Reagent D to 1x by adding 80 ml of 96-100% ethanol prior to starting the protocol.

- Mix 4 volumes of Reagent C with 1 volume of PCR reaction mixture sample.

  NOTE: Reagent C contains chaotropic (i.e. biologically disruptive) salts. Handle with caution.

  NOTE: minimum volume of sample required is 100 µl. Bring sample volume up to 100 µl using 10 mM Tris-HCl, 1 mM EDTA pH 7.5 if necessary. For sample volumes larger than 100 µl, proportionally adjust the volumes of GenoCruz™ reagents used.

- Vortex the GenoCruz™ PCR matrix thoroughly, resulting in a homogeneous mixture. For each 100 µl of reaction mixture add 10 µl of the GenoCruz™ PCR matrix. Incubate the mixture for 10 minutes at room temperature. Vortex briefly every 2-3 minutes.
- Centrifuge the sample for 30 seconds at 10,000 x g and discard the supernatant.
- Add 400 µl of Reagent C to the above pelleted GenoCruz™ PCR Matrix and vortex briefly.
- Centrifuge the sample for 30 seconds at 10,000 x g and remove the supernatant completely.
- Wash pelleted GenoCruz™ PCR Matrix twice, using 400 µl of Reagent D each time. For each wash vortex briefly to resuspend the matrix, centrifuge for 30 seconds at 10,000 x g. Remove the supernatant completely.
- Centrifuge the sample for 30 seconds at 10,000 x g, remove the supernatant and centrifuge again. Remove residual supernatant completely.
- Dry the pelleted GenoCruz™ PCR Matrix at room temperature or at 37° C for 10-15 minutes.

  NOTE: Over-dried GenoCruz™ PCR Matrix leads to lower DNA recovery. Do not use Speedvac to dry out the matrix.

- Add 25-50 µl Reagent E to the dried GenoCruz™ PCR matrix. Resuspend by vortexing. Incubate the mixture at room temperature for 10-15 minutes. Vortex the sample every 2-3 minutes during the incubation.

PCR PURIFICATION PROTOCOL *cont.*

NOTE: Recovery yields for PCR fragments >5 kb can be increased by performing the incubation at 55° C.

- Centrifuge the sample for 30 seconds at room temperature and transfer the DNA containing supernatant into a clean tube.

  NOTE: Repeating this step will increase the yield by 10%.

STORAGE

Store at room temperature, **DO NOT FREEZE**. Stable for one year from the date of shipment.

GenoCruz™ PCR Purification Kit contains sodium perchlorate solution < 60% (CAS# 7601-89-0). See attached MSDS for information and precautions.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

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MATERIAL SAFETY DATA SHEET

CHEMICAL AND COMPANY IDENTIFICATION

PRODUCT NAME: GenoCruz™ PCR Purification Reagent Buffer solution C, 100 preparations.

CATALOG NUMBER: sc-45047

SUPPLIER: Santa Cruz Biotechnology, Inc.
2145 Delaware Ave.
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

EMERGENCY: ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE: Sodium perchlorate solution < 60% ($NaClO_4$ • H_2O)

OXIDIZING SUBSTANCE/PREPARATION:
SYMBOL: O
SUBSIDIARY SYMBOL: Xn
CAS NO.: 7601-89-0
EC NO.: 231-511-9
INDEX NO.: 017-010-00-6
R REFERENCE: 9-22
S REFERENCE: 13-27
HAZARD SYMBOLS: Labeling not necessary if quantity below 50 g or ml (concerning 67/548/EEC Art. 25, 1999/45/EC Art. 12 and German GefStoffV § 20 (3) and TRGS 200 7.1)

HAZARDS IDENTIFICATION

Causes slight to severe impairments of health due to the swallowing or direct skin contact depending on the amount which has been ingested.

FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA: Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area.
HAZARDS, COMBUSTION PRODUCTS/GASES: Beware of formation of hazardous and caustic vapors.
ADDITIONAL INFORMATION: The substance is not flammable, but boost oxidizing. Product package burns like paper or plastic. Cool any undamaged containers in water, and remove from the danger zone if possible. Danger of bursting. Spray any vapors released with water. Only use equipment which is resistant to chemicals.

FIRST AID MEASURES

FOLLOWING INHALATION OF VAPORS: Remove to fresh air. Call a physician.
AFTER CONTACT WITH SKIN: Rinse the affected skin or mucous membrane thoroughly with water. If necessary, apply a loose dressing.
AFTER CONTACT WITH THE EYES: Rinse thoroughly for a minimum of 10 minutes under running water with the eyelid wide open. If opening of the eyelid is painful, apply eye drops (Proxymetacaine 0.5 %), then apply a loose bandage. Immediately call a physician or eye specialist.
AFTER SWALLOWING: Wash out mouth and drink copious amounts of water, if possible with charcoal. Call a physician.
FURTHER MEDICAL TREATMENT/ATTENTION: Treat symptomatically. Secure the breathing, heart and circulatory function. Remove the substance quickly from the body. Mechanically induce vomiting or ensure the patient eats medicinal charcoal compressed tablets. In order to ensure rapid passage through the colon, administer 2 tablespoons of dissolved Glauber's salt. For alleviation of pain, administer sedation if necessary. Administer a prophylaxis to counter pulmonary edema. An eye bath or spray should always be provided at the workplace.

ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Regular staff training is necessary, indicating hazards and precautions on the basis of operating instructions.
CLEAN-UP PROCEDURES: Bind powder and any escaping liquid with universal binder and dispose in accordance to local regulations for the disposal of hazardous chemicals. Clean any contaminated equipment and floors with an abundant quantity of water.
ENVIRONMENTAL PRECAUTIONS: Do not discharge large amounts of substance into the drains/surface waters/groundwater.

HANDLING AND STORAGE

HANDLING: Handle in accordance with the testing instructions that come with the product.
STORAGE: The original product package allows for safe storage. Keep away or preferably separate from substances with which a hazardous reaction could take place.
STORAGE CLASS (GERMAN CHEMICAL INDUSTRY): 5.1 A

EXPOSURE CONTROLS/PERSONAL PROTECTION

RECOMMENDED TECHNICAL MEASURES: Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.
PERSONAL PROTECTION: Protective breathing apparatus, protective gloves, protective goggles/safety glasses and protective overalls recommended.
PERSONAL HYGIENE: Eating, drinking, smoking and storage of food in work areas is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: colorless, odorless liquid or solid.
PH IN AQUEOUS SOLUTION: 4.5-7
MELTING POINT: 130° C
RELATIVE DENSITY: (at 20° C) 1.40-1.75 g/cm^3
SOLUBILITY IN WATER: (at 20° C) 0-64 %

STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Contact with combustible material.
MATERIALS TO AVOID: Combustible material.

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TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS: The acute and chronic toxic effects of harmful substances can differ markedly.

TOXICOLOGICAL TESTS

CORROSIVE EFFECTS: not observed
IRRITANT EFFECTS: possible
SENSIBILIZATION EFFECTS: possible
EFFECTS AFTER MULTIPLE EXPOSITION: possible

ECOLOGICAL INFORMATION

ASSESSMENT OF POSSIBLE EFFECTS: The potential effect of a single package on the environment is considerably low.
CHARACTERISTICS LIKELY TO HAVE AN EFFECT ON THE ENVIRONMENT: Hazardous to drinking water, only if large amounts enter the subsoil and waters.

DISPOSAL CONSIDERATIONS

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company.

TRANSPORT INFORMATION

PROPER SHIPPING NAME: Oxidizing liquid, n.o.s. (sodium perchlorate solution)
UN NO.: 3139 **CLASS:** 5.1 **PACKAGING GROUP:** III
COMMERCIAL TRANSPORT:
ROAD/RAILWAY: ADR/RID Class Code: O1, LQ 13 = 1 L/ 30 kg
MARITIME TRANSPORT: IMDG EmS: F-A,S-P
AIR TRANSPORT: IATA-DGR PAX 514 CAO 515
ALTERNATIVE TRANSPORT INFORMATION:
TRANSPORT NAME: Perchlorates, inorganic, aqueous solution, n.o.s.
UN-NO: 3211 **CLASS:** 5.1 **PACKAGING GROUP:** (PG): III
STREET ADR CL. CODE: O1, LQ 13 = 1 L/ 30 kg

REGULATORY INFORMATION

LABELING
CODE: O **SUBSIDIARY CODE:** Xn
DESCRIPTION: Oxidizer
CONSTITUENTS WHICH ARE CRUCIAL TO THE HAZARD: Sodium perchlorate solution < 60 %
R REFERENCES: R9 Explosive when mixed with combustible material, R22 Harmful if swallowed
S REFERENCES: S13 Keep away from food, drink and animal feeds, S27 Take off immediately all contaminated clothing

INTERNATIONAL AND NATIONAL REGULATIONS

1. European Community Directive 67/548/EEC governing the classification, packaging and labeling of dangerous substances, including 29th Adaptation to Technical Progress (ATP), 2004/73/EC on April 2004
2. German act governing protection from hazardous substances (Chemicals Act/Chemikaliengesetz- ChemG), dated July 1994, revised on June 2002
3. German order governing protection from hazardous substances (Ordinance on Hazardous Substances/Gefahrstoffverordnung - GefStoffV), revised on December 2004, according to Directive 98/24/EC
4. Directive 91/155/EEC governing the information system on hazardous substances and preparations (MSDS)
5. Directive 1999/45/EC concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations
6. Directive 2001/58/EC, system of specific information relating to dangerous preparations
7. TRGS 200, German engineering rules for dangerous goods governing the classification and labeling of substances, preparations and products, updated January 2003
8. TRGS 220 German engineering rules for dangerous goods governing the safety data sheets for hazardous substances, preparations and products, updated January 2003; includes directive 91/155/EEC
9. TRGS 900, German engineering rules for dangerous goods governing limit values in the air at the workplace, updated August 2004

OTHER NATIONAL REGULATIONS

Water hazard class, Germany: 1

OTHER INFORMATION

RECOMMENDED USAGE AND RESTRICTION: Only for trained staff. An individual package of this product or of this test kit has considerably less hazardous potential.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Santa Cruz Biotechnology, Inc. shall not be held liable for any damage resulting from handling or from contact with the product.

1/26/2011