

UltraCruz[®] Blocking Reagent: sc-516214

BACKGROUND

UltraCruz[®] Blocking Reagent is a universal antibody diluent and blocking reagent recommended for use in immunohistochemistry (IHC), immunofluorescence (IF), Western blotting (WB), and for other research applications. UltraCruz[®] Blocking Reagent contains no animal-derived protein and can be used as an alternative to sera, BSA, casein, or non-fat dry milk. Traditional blocking buffers contain proteins or animal immunoglobulins which may non-specifically bind to secondary antibodies and other immunodetection reagents, resulting in high background and reduced signal. The UltraCruz[®] Blocking Reagent is a plant protein-derived product and is designed to stabilize diluted antibody solutions and eliminate background due to non-specific binding in different antibody-based research applications. The UltraCruz[®] Blocking Reagent is especially convenient in multiplex IHC (multiple antigen labeling) applications where antibodies from several different species are used. It is also highly recommended for use with near-infrared (NIR) Western blot detection methods.

REFERENCES

- David, V., et al. 2009. Matrix extracellular phosphoglycoprotein (MEPE) is a new bone renal hormone and vascularization modulator. *Endocrinol.* 150: 4012-4023.
- Cheng, G., et al. 2010. Basis for MAP4 dephosphorylation-related microtubule network densification in pressure overload cardiac hypertrophy. *J. Biol. Chem.* 285: 38125-38140.
- Chinnakkannu, P., et al. 2010. Site-specific microtubule-associated Protein 4 dephosphorylation causes microtubule network densification in pressure overload cardiac hypertrophy. *J. Biol. Chem.* 285: 21837-21848.
- Keeley, R.J., et al. 2010. Effect of juvenile pretraining on adolescent structural hippocampal attributes as a substrate for enhanced spatial performance. *Learn. Mem* 17: 344-354.
- Xiao, C., et al. 2010. SIRT6 deficiency results in severe hypoglycemia by enhancing both basal and Insulin-stimulated glucose uptake in mice. *J. Biol. Chem.* 285: 36776-36784.
- Lu, S.J., et al. 2011. Platelets generated from human embryonic stem cells are functional *in vitro* and in the microcirculation of living mice. *Cell Res.* 21: 530-545.
- Pretheeban, T., et al. 2011. Comparison of expression levels of candidate genes in endometrium of dairy heifers and lactating dairy cows. *Can. J. Anim. Sci.* 91: 255-264.
- Li, H., et al. 2011. Compound deletion of Fgfr3 and Fgfr4 partially rescues the Hyp mouse phenotype. *Am. J. Physiol. Endocrinol. Metab.* 300: E508-E517.

PRODUCT

UltraCruz[®] Blocking Reagent is provided as 100 ml ready-to-use solution for blocking and dilution of antibodies. This reagent is a proprietary buffer that is an animal-free alternative to sera, BSA, casein or non-fat dry milk.

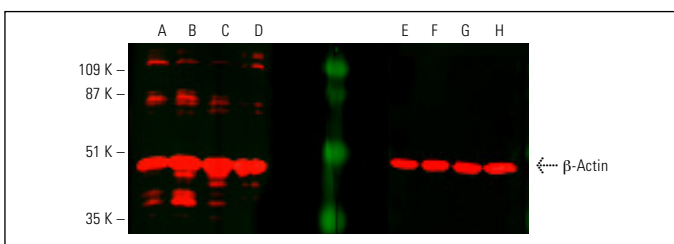
SOURCE

UltraCruz[®] Blocking Reagent is a plant protein-derived blocking reagent and diluent.

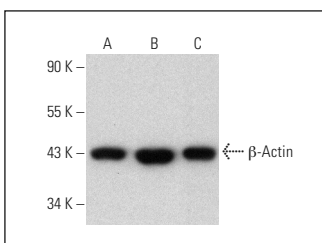
APPLICATIONS

UltraCruz[®] Blocking Reagent is recommended for use in Western Blotting, immunofluorescence and immunohistochemistry (including paraffin-embedded sections). Final volume to be determined by researcher.

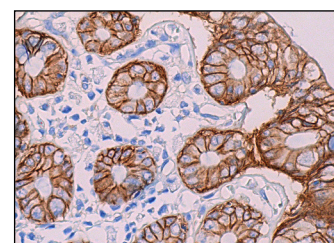
DATA



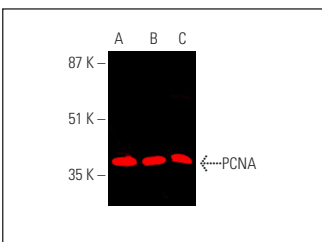
β -Actin (C4): sc-47778. Near-infrared western blot analysis of HeLa (A,E), Jurkat (B,F), NIH/3T3 (C,G) and KNRK (D,H) whole cell lysates. Blocking reagent used: TBS Blotto A: sc-2333 (A-D) and UltraCruz[®] Blocking Reagent: sc-516214 (E-H). Note superior blocking using UltraCruz[®] Blocking Reagent.



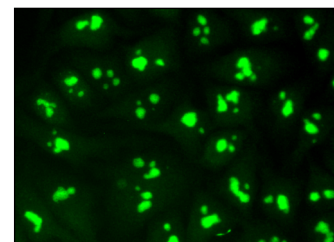
β -Actin (C4): sc-47778. Western blot analysis of β -Actin expression in HeLa (A), NIH/3T3 (B) and KNRK (C) whole cell lysates. Blocking reagent used: UltraCruz[®] Blocking Reagent: sc-516214.



β -catenin (E-5): sc-7963. Immunoperoxidase staining of formalin fixed, paraffin-embedded human rectum tissue showing membrane and cytoplasmic staining of glandular cells. Blocking reagent used: UltraCruz[®] Blocking Reagent: sc-516214.



PCNA (PC10): sc-56. Near-infrared western blot analysis of PCNA expression in HeLa (A), NIH/3T3 (B) and KNRK (C) whole cell lysates. Blocking reagent used: UltraCruz[®] Blocking Reagent: sc-516214.



BOP1 (E-1): sc-390672. Immunofluorescence detection of BOP1 in formalin-fixed HeLa cells showing nucleolar localization. Blocking reagent used: UltraCruz[®] Blocking Reagent: sc-516214.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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



The Power to Question

SAFETY DATA SHEET

Santa Cruz Biotechnology, Inc.

Revision date 18-Dec-2017

Version 1.1

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

Product identifier

Product Name UltraCruz® Blocking Reagent
Product Code SC-516214

Recommended use of the chemical and restrictions on use

For research use only. Not intended for diagnostic or therapeutic use.

Details of the supplier of the safety data sheet

Santa Cruz Biotechnology, Inc.
10410 Finnell Street
Dallas, TX 75220
831.457.3800
800.457.3801
scbt@scbt.com

Emergency telephone number

Chemtrec
1.800.424.9300 (Within USA)
+1.703.527.3887 (Outside USA)

2. HAZARDS IDENTIFICATION

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.122).

Classification

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label elements

Signal word Not classified
Hazard statements Not classified
Symbols/Pictograms Not classified

Precautionary Statements - Prevention Wash hands thoroughly after handling
Precautionary Statements - Response IF exposed or concerned: Get medical advice/attention

Hazards not otherwise classified (HNOC)

Hazards not otherwise classified (HNOC) Not applicable

Other Information

Unknown acute toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity.

NFPA	Health hazards	-		HMIS	Health hazards	-
	Flammability	-			Flammability	-
	Stability	-			Physical hazards	-
	Physical and chemical properties	-			Personal protection	-

3. COMPOSITION/INFORMATION ON INGREDIENTS

Molecular Weight No information available
Formula No information available

Chemical Name	CAS No	Weight %	Oral LD50	Dermal LD50	Inhalation LC50
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UltraCruz® Blocking Reagent	-	>98	-	-	-
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4. FIRST AID MEASURES

First Aid Measures

General advice	Consult a physician if necessary. Remove to fresh air.
Eye contact	Wash with plenty of water.
Skin Contact	Wash skin with soap and water.
Inhalation	Remove to fresh air If breathing is difficult, give oxygen If not breathing, give artificial respiration
Ingestion	Never give anything by mouth to an unconscious person. Clean mouth with water.

Most important symptoms and effects, both acute and delayed

Symptoms	No information available.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media	None.

Specific hazards arising from the chemical

Specific hazards arising from the chemical	No information available.
Hazardous combustion products	No information available.

Explosion data

Sensitivity to Mechanical Impact	No information available.
Sensitivity to Static Discharge	No information available.

Protective equipment and precautions for firefighters

Protective equipment and precautions for firefighters	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.
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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation, especially in confined areas.
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Environmental precautions

Environmental precautions	See Section 12 for additional Ecological Information.
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Methods and material for containment and cleaning up

Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Store at 4 °C.
 Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Guidelines .

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

NIOSH IDLH Immediately Dangerous to Life or Health

Appropriate engineering controls

Engineering Controls Showers
 Eyewash stations
 Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).
 Skin and Body Protection Wear protective gloves and protective clothing.
 Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
 General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State liquid
 Appearance No information available
 Odor No information available

Property**Values**

pH No information available
 Melting point/freezing point No information available
 Boiling point No information available
 Flash point No information available
 Density No information available
 Evaporation rate No information available
 Upper flammability limits No information available
 Lower flammability limit No information available
 Vapor pressure No information available
 Vapor density No information available
 Specific gravity No information available
 Water solubility No information available
 Solubility in other solvents No information available
 Partition coefficient No information available
 Autoignition temperature No information available
 Decomposition temperature No information available
 Kinematic viscosity No information available
 Explosive properties No information available

Oxidizing properties	No information available
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10. STABILITY AND REACTIVITY

Reactivity	Not applicable
Chemical stability	Stable under recommended storage conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous polymerization	No information available.
Conditions to avoid	Extremes of temperature and direct sunlight.
Incompatible materials	Strong oxidizing agents.
Hazardous Decomposition Products	None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Inhalation	No data available.
Eye contact	No data available.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms	No information available.
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity	No information available.
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Numerical measures of toxicity - Product Information

Unknown acute toxicity	100% of the mixture consists of ingredient(s) of unknown toxicity
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12. ECOLOGICAL INFORMATION

Ecotoxicity	May cause long lasting harmful effects to aquatic life
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100% of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Persistence and degradability	No information available.
Bioaccumulation	No information available.
Mobility	No information available.

13. DISPOSAL CONSIDERATIONS

Disposal of wastes	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated packaging	Do not reuse container.
US EPA Waste Number	P105
California Hazardous Waste Status	This product contains one or more substances that are listed with the State of California as a hazardous waste.

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet