



Extracellular Matrix: sc-136155

BACKGROUND

The Extracellular Matrix is important in providing structural support to mammalian cells and is involved in a multitude of other crucial functions. The Extracellular Matrix is a complex molecular interactive network that includes the interstitial matrix and the basement membrane. The basement membrane plays a critical role during development and in various stages of tumor invasion and metastasis. Composed of glycosaminoglycans (GAGs) and an interlocking mesh of fibrous proteins such as collagen and fibronectin, the Extracellular Matrix promotes attachment, spreading, mitosis and differentiation of anchorage-dependent epithelioid cells.

REFERENCES

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2. Rulquin, H., Le Henaff, L. and Vérité, R. 1990. Effects on milk protein yield of graded levels of Lysine infused into the duodenum of dairy cows fed diets with two levels of protein. *Reprod. Nutr. Dev. Suppl.* 2: 238s.
3. Karsenty, G. and Park, R.W. 1995. Regulation of type I collagen genes expression. *Int. Rev. Immunol.* 12: 177-185.
4. Iozzo, R.V. 1998. Matrix proteoglycans: from molecular design to cellular function. *Annu. Rev. Biochem.* 67: 609-652.
5. Kern, B., Shen, J., Starbuck, M. and Karsenty, G. 2001. Cbfa1 contributes to the osteoblast-specific expression of type I collagen genes. *J. Biol. Chem.* 276: 7101-7107.
6. Di Lullo, G.A., Sweeney, S.M., Korkko, J., Ala-Kokko, L. and San Antonio, J.D. 2002. Mapping the ligand-binding sites and disease-associated mutations on the most abundant protein in the human, type I collagen. *J. Biol. Chem.* 277: 4223-4231.
7. Hensch, T.K. 2005. Critical period mechanisms in developing visual cortex. *Curr. Top. Dev. Biol.* 69: 215-237.

PRODUCT

Extracellular Matrix is purified from human placenta; supplied as 1 mg, frozen, in 0.02 M sodium phosphate, pH 7.4.

The source placenta was tested and found negative for antibodies to hepatitis B surface antigen (HBsAg) and human immunodeficiency virus-1 (HIV-1). Nevertheless, ****THIS PRODUCT SHOULD BE HANDLED USING THE SAME SAFETY PRECAUTIONS USED WHEN HANDLING POTENTIALLY INFECTIOUS MATERIAL****.

Product has been tested for its ability to promote neurite outgrowth of NG-108 (mouse neuroblastoma/rat glioma) cells at 10 µg/cm². Extracellular Matrix is generally used as a thin coating in the concentration range of 1.25-10 µg/cm². Coating protocols are provided as guidelines only; each laboratory should empirically determine the optimal conditions for their unique applications.

The contents of this vial have been tested and found negative for the presence of bacteria, fungi and mycoplasma.

STORAGE AND RECONSTITUTION

- Stable for a minimum of three months from the date of shipment when stored at -70° C.
- If entire amount of material is not to be used immediately, transfer into appropriate aliquots and store at -70° C.
- ****AVOID MULTIPLE FREEZE-THAW CYCLES****.

RECOMMENDED COATING PROTOCOL

- Dilute material to desired concentration using serum-free medium. The final solution should be sufficiently dilute so that the volume added to the coating surface will cover it evenly (e.g. for a final coating concentration of 5 µg/cm², dilute material to 50 µg/ml and add 1 ml/35 mm dish, 3 ml/60 mm dish, etc.).
- Add appropriate amount of diluted Extracellular Matrix to culture surface.
- Incubate at room temperature for 2 hours.
- Aspirate remaining material.
- Rinse plates carefully; avoid scraping bottom surface.
- Plates may be used immediately or may be stored at 2-8° C, damp or air dried, if sterility is maintained.

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 03-Jan-2018

Version 1

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

Product identifier

Product Name Extracellular Matrix
Product Code SC-136155

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
Extracellular Matrix	-	70 - 90	-	-	-

PBS (1X)	-	7 - 13	-	-	-
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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.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Ensure adequate ventilation, especially in confined areas.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

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	Use personal protective equipment as required. Cover powder spill with plastic sheet or tarp to minimize spreading and keep powder dry. Take up mechanically, placing in appropriate containers for disposal. Avoid creating dust. Clean contaminated surface thoroughly.

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.
Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

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 Solid
Appearance No information available
Odor No information available

Property

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

Values

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 components(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.

14. TRANSPORT INFORMATION

DOT	Not regulated
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IMDG Not regulated

IATA Not regulated

15. REGULATORY INFORMATION

International Inventories

All of the components in the product are on the following Inventory lists

No information available

X - Listed

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations

16. OTHER INFORMATION

Revision note No information available

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