www.stcstri.com

STC-hSCM

human stem cell conditioned media

STC 인체유래줄기세포 배양액

STRI

STC Stem Cell Treatment & Research Institute

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[Research & development]

ABOUT

STC NARA

Established in 1989, STC NARA is dedicated to realizing healthy beauty for mankind based on decades of life sciences technology. With the vision of new technology for mankind, we have come up with ready-made products as well as active ingredients for cosmetics using human stem cell conditioned media with its growth factors and energy water.

STC NARA provides one-stop servicing all the way from product planning to delivery of finished products. Whether it be in the field of customized cosmetics or functional products for anti-ageing, STC NARA promises to deliver to you the very best services in the cosmetics business, tailored to your needs.

Manufacturing site : 139-11 Mo-jeon 1-gil, Seo-buk-gu, Cheon-an-si, Chungcheong Namdo, South Korea

ISP9001 Certified on March 2007

CGMP Certified on March 2007 (Facilities area 1.656m2)

Products category : Cosmetics(Skincare/ Makeup/ Functional/ Sheet Mask), Quasi-Drugs, Food Supplements

Manufacturing Capacity : Up to 12,000 EA per day in basic skincare, 7,000 EA per day in makeup and 20,999 EA per day in sheet mask

ABOUT

STRI

STC Stem Cell Treatment & Research Institute

With the mission ‘Contributing to the Mankind by Developing Cell Therapy with a Righteous Mind,’ STRI (STC Stem cell Treatment & Research Institute) is opening up an era of youthful 100 years and healthy 120 year olds. In 2013, STRI developed a pluripotent stem cell without side effects for the first time in the world and named it STC-nEPS(Elicited Pluripotent by Natural Compound).

Furthermore using STC-nEPS as its basis, STRI has successfully differentiated this into a pancreatic beta cell, neurocyte, hepatocyte, chondrocyte, osteoblast and an adipocyte for further research into a cell therapy and to develop artificial organs using 3-D printing. As of today, we have registered 32 STC n-EPS related patents in 146 countries.

Pluripotent stem cell without side effects is STRI’s very own technology that overcomes all shortcomings of the induced pluripotent stem cell (iPS) or the embryonic stem cell (ES). It is anticipated that STC-nEPS will build upon us a new paradigm in science that will improve the quality of life for mankind.

1

What is a stem cell conditioned media?

Just as a human body continues to release growth factors related to cell growth and regeneration along with proteins including Cytokine throughout its lifespan, a stem cell under a given cultivating environment will also release different growth factors and Cytokine similar to those of a human body. Separating such protein elements from a stem cell will give you a stem cell conditioned media. In other words, the term refers to a culturing medium containing different proteins and growth factors released from the cell in the process of its cultivation. More recently, it is receiving attention as the leading technology for the next generation cosmetics with its possible uses in the fields of cosmetics and aesthetics with its cell growth and regenerative effects.

2

How is STC hSCM (human stem cell conditioned media) prepared?

Umbilical cord separated from pregnant women between 15~20 weeks of their pregnancy on the day of their giving birth will undergo blood, DNA and virus tests to be used as source to separate into a mesenchymal stem cell. STRI is supplying hSCM growth factors cultivated from MSC of the human umbilical cord.

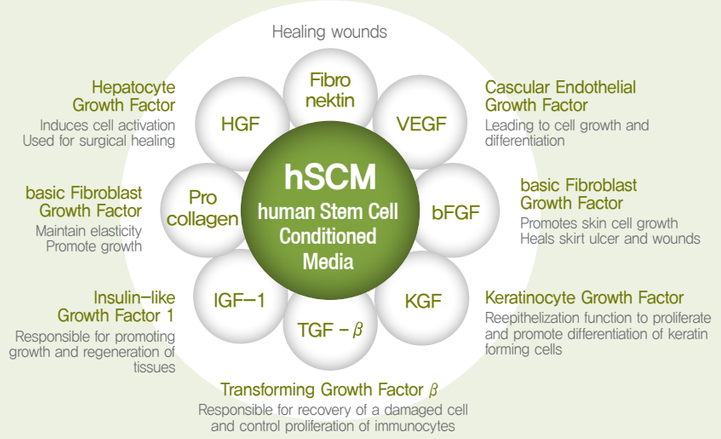
Only umbilical cord that have passed the DNA, immune serum and virus tests will be used as source to derive the needed MSC. Following sterile, serum-free and non-antibiotic cultivation and micro-filtration, it will undergo virus, pathogenic microorganisms, bacteria and growth factor content tests to only use stem cell conditioned media that are safe and of superior quality.

3

Superiority of STC-hSCM(human Stem Cell Conditioned Media)

Proteins inside the human stem cell conditioned media

Growth related matters including bFGF, KGF, TGF-β, IGF-1, HGF, VEGF, Procollagen, Fibronectin will help formation of collagen to give you a youthful, elastic, and clear looking skin.



Umbilical cord derived stem cells possess superior vitality that leads to active generation of different growth factors and proteins that promotes skin cell growth, skin recovery and protection. It has been proven to possess superior efficacy as a cosmetic ingredient for skin cell growth and regeneration as well as to heal wounds.

Uses : Whitening, wound healing, hair growth and regeneration, skin regeneration.

4 STC Technology and Safety

Just as a human body continues to release growth factors related to cell growth and regeneration along with proteins including Cytokine throughout its lifespan, a stem cell under a given cultivating environment will also release different growth factors and Cytokine similar to those of a human body. Separating such protein elements from a stem cell will give you a stem cell conditioned media. In other words, the term refers to a culturing medium containing different proteins and growth factors released from the cell in the process of its cultivation. More recently, it is receiving attention as the leading technology for the next generation cosmetics with its possible uses in the fields of cosmetics and aesthetics with its cell growth and regenerative effects.

Safety testing for use as cosmetic ingredients

	Completion Date	Test Plan	Final Report	Outcome
Single toxicity test on rat	Mar-11-2013	V	V	No abnormalities
13-weeks repeated toxicity test on rat	Apr-24-2014	V	V	No abnormalities
Main assay on reverse mutation	Apr-02-2013	V	V	No abnormalities
Main assay on chromosome aberration	Feb-26-2013	V	V	No abnormalities
Main assay on micro nucleus	Jan-31-2013	V	V	No abnormalities
Guinea pig skin sensitivity test	Dec-21-2012	V	V	No abnormalities
Rabbit skin stimulation test	Feb-28-2013	V	V	No abnormalities
Rabbit eye irritation stimulant test	Dec-04-2012	V	V	No abnormalities
Guinea pig phototoxicity test	Mar-03-2013	V	V	No abnormalities
Photosensitizaton test	Mar-27-2013	V	V	No abnormalities

(by Chemon, Official CRO of KFDA, 2013)

STC hSCM

human stem cell conditioned media

COA


STC

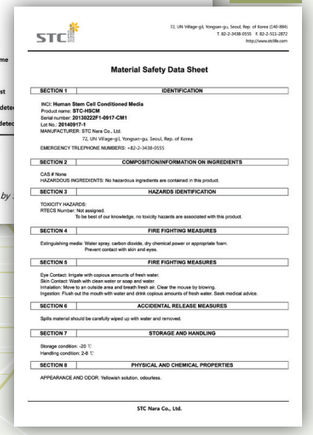
Certificate of Analysis

Product: Human Stem Cell Media (20131015#0103#CM1)
Testing Date: Jan. 30. 2014

Analytical tests	Specifications	Results
Microbes	Undetected	Pass
pH	7.5±0.5	7.6
Odour	Typical	Pass
Color		Yellow
Aspect		
Solubility		
Total protein		
Packing Volume		
Asepsis Test		
CMV virus Test		
Mycoplasma dete		
Nucleic acid detec		
Packing & Storage		
Safety		

Approved by

MSDS


STC

Material Safety Data Sheet

SECTION 1 IDENTIFICATION

INCI: Human Stem Cell Conditioned Media
Product name: STC-HSCM
Serial number: 20130223F1-0917-CM1
Lot No.: 20140917-1
MANUFACTURER: STC Nara Co., Ltd.
72, UN Village-gil, Yongsan-gu, Seoul, Rep. of Korea
EMERGENCY TELEPHONE NUMBERS: +82-2-3438-0555

SECTION 2 COMPOSITION/INFORMATION ON INGREDIENTS

CAS # None
HAZARDOUS INGREDIENTS: No hazardous ingredients are contained in this product.

SECTION 3 HAZARDS IDENTIFICATION

TOXICITY HAZARDS:
RTECS Number: Not assigned.
To be best of our knowledge, no toxicity hazards are associated with this product.

SECTION 4 FIRE FIGHTING MEASURES

Extinguishing media: Water spray, carbon dioxide, dry chemical power or appropriate foam.
Prevent contact with skin and eyes.

SECTION 5 FIRE FIGHTING MEASURES

Eye Contact: Irrigate with copious amounts of fresh water.
Skin Contact: Wash with clean water or soap and water.
Inhalation: Move to an outside area and breath fresh air. Clear the mouse by blowing.
Ingestion: Flush out the mouth with water and drink copious amounts of fresh water. Seek medical advice.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spills material should be carefully wiped up with water and removed.

SECTION 7 STORAGE AND HANDLING

Storage condition: -20 ℃
Handling condition: 2-8 ℃

SECTION 8 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOR: Yellowish solution, odourless.

STC Nara Co., Ltd.

What is a human Stem Cell Conditioned Media?

It is a generic term used in all peptides that promotes growth, differentiation and division of different cells. There are some 250 different types of growth factors created during the stem cell cultivation process.

What is a STC-hSCM?

Using the umbilical cord derived stem cell conditioned media as an active ingredient, STC-hSCM undergoes rigorous processes to test toxicity with its 26 years of expertise in stem cell research & development.

MAIN GROWTH FACTORS

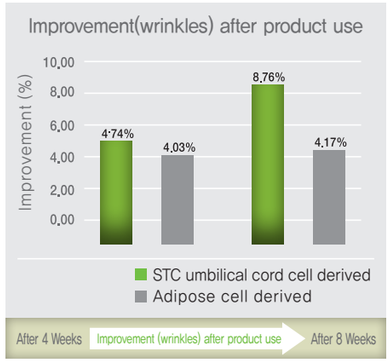
- E G F (Epidermal Growth Factor)
- PDGF (Platelet Derived Growth Factor)
- H G F (Hepatocyte Growth Factor)
- K G F (Keratinocyte Growth Factor)
- VEGF (Vascular Endothelial Growth Factor)
- Collagen

Registered in the ICID (International Cosmetic Ingredients Dictionary)

5 Efficacy of the STC-hSCM

By promoting creation of the procollagen that accelerates formation of the new elastic fiber, STC human stem conditioned media will add skin elasticity and whitening effect by lowering amount of melanin pigments in your skin.

Moreover, different growth factors known to reside inside the stem cells in high concentrations are growth factors in your hypodermal as well as epidermal cells that possess the ability of skin regeneration, reinforce your immunity as well as to heal wounds.



In 2008, skin regeneration efficacy was proven through a clinical at Ellead, a KFDA authorized CRO. It was a first among its kind in the nation, using human stem cell conditioned media.

6 STC Culturing Technology and Price Advantage

Life sciences company STC is able to bring you quality hSCM(human stem cell conditioned media) at an affordable price owing to the superior technology of its in-house research institution STRI that separates stem cells from the umbilical cord and cultivates the medium up to two times faster than that of our competitors.the next generation cosmetics with its possible uses in the fields of cosmetics and aesthetics with its cell growth and regenerative effects.

For further questions, please email to enquiry@stc365.com

STRI

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