

High Quality, Stem Cell-Based
Serum for Research Use and
Use in Cosmetic Products

What is OUR PRODUCT?

- A serum containing high quality cellular ingredients
- Cellular ingredients are derived from human umbilical cord lining stem cells (ULSCs)
- Cells derived from ULSCs have plasticity characteristics of mesenchymal stem cells
- ULSCs can be differentiated into desired ingredients for cosmetic use via culture with appropriate induction and growth media

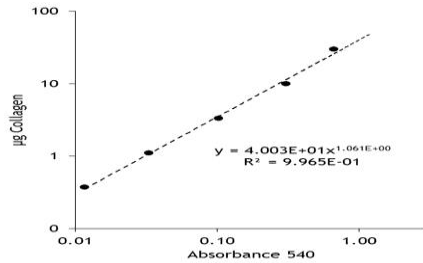
Proprietary
***Patent
Pending***
Process!

OUR PRODUCT Ingredients

- Collagen
 - Type I
 - Type III
- Hyaluronic Acid (HA)
- Chondroitin Sulfate (CS)

- Stem cell growth factors
 - Nerve growth factor (NGF)
 - Basic fibroblast growth factor (bFGF)
 - Stem cell factor (SCF)
 - Vascular endothelial growth factor (VEGF)

Conditioned Medium



Collagen I & III Contents
mg/ ml

Sample A: Conditioned
medium, neat (Lot 121914BB)

0.281

Sample B: Sample A, 10-fold
concentrated (Lot 121914BB)

0.961

Sample C: Sample B, filtered
(Lot 121214BA)

1.643



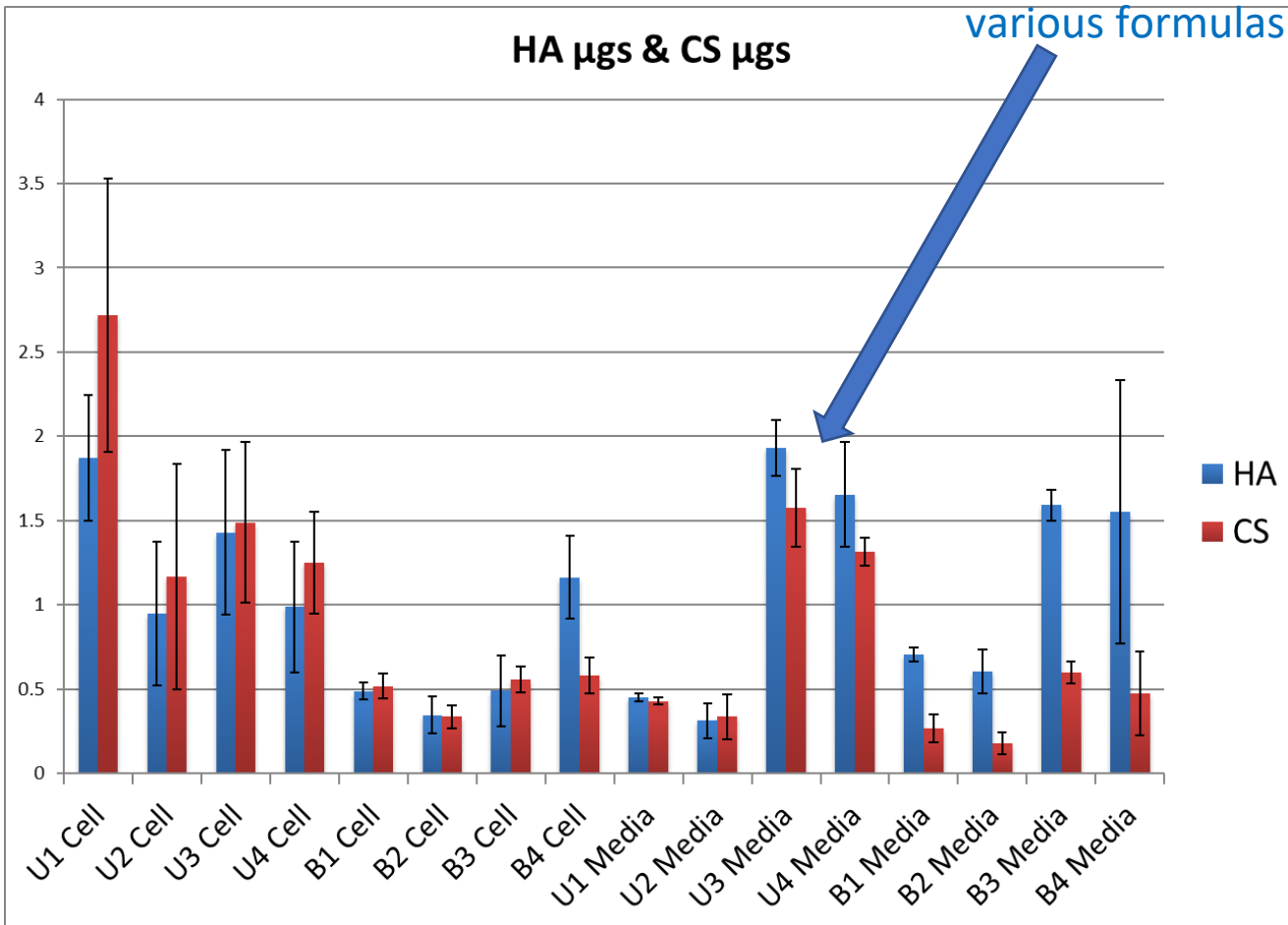
Collagen

Our manufacturer uses a
scientifically based process
to produce the highest
possible yield of collagen

Best method to
obtain highest
amount determined
through research

HA and CS in OUR
PRODUCT after testing
various formulas

HA μ gs & CS μ gs



Hyaluronic Acid (HA) Chondroitin Sulfate (CS)

Independent testing
helped determine correct
formulation for maximal
HA and CS production

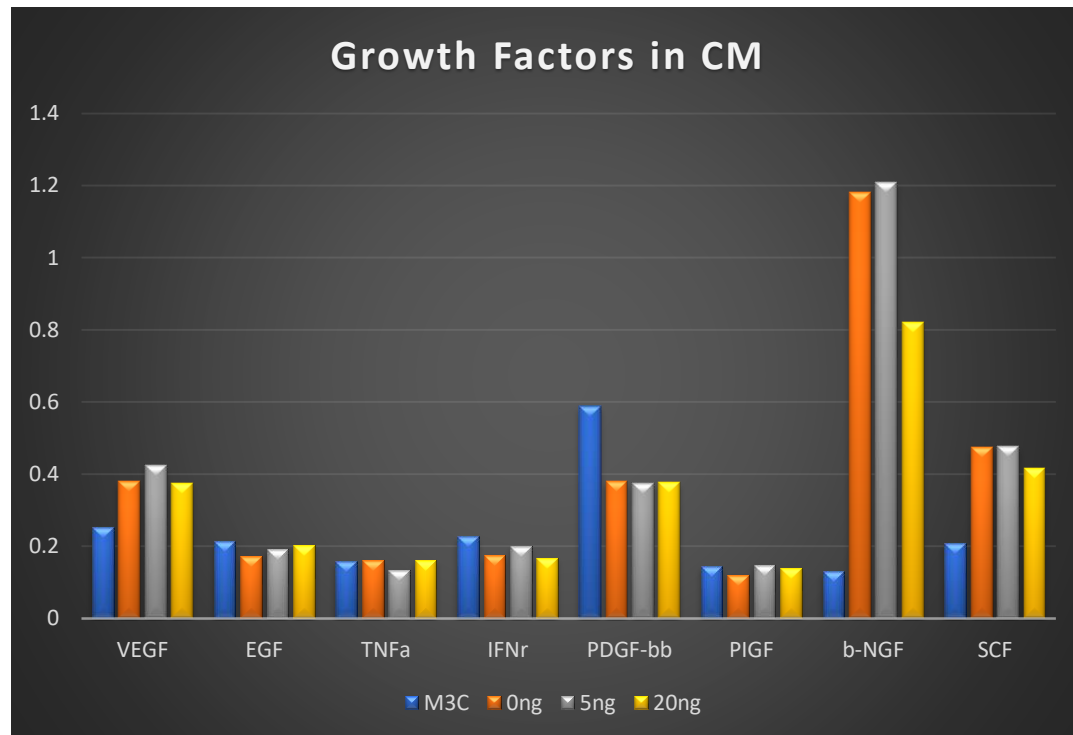
Hyaluronic Acid (HA)

- High molecular weight is the best for skin.

<http://barefacedtruth.com/2015/03/31/hyaluronic-acid-yes-size-does-matter/>

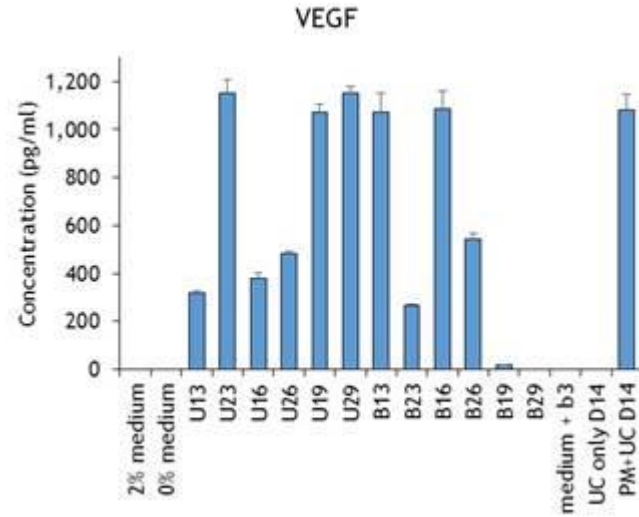
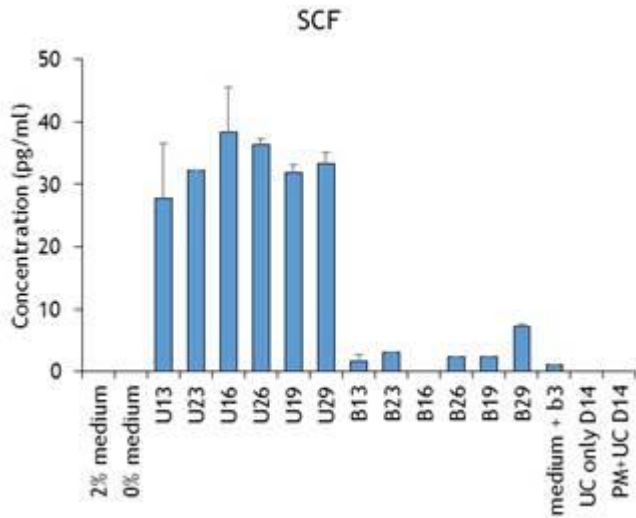
- OUR PRODUCT has high molecular weight HA

Growth Factors (GF) in OUR PRODUCT Conditioned Media



Growth Factors

The production of Growth Factors in OUR PRODUCT is optimized by proprietary research

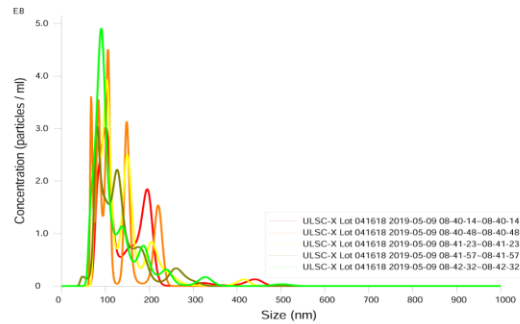


Growth Factors
 The production of Growth Factors in OUR PRODUCT is optimized by proprietary research

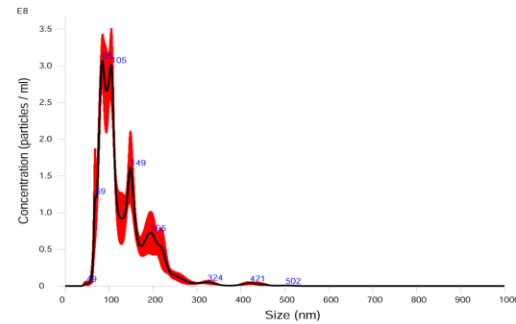
U: Medium from umbilical cord lining stromal cell culture
 B: Medium from bone marrow mesenchymal stromal cell culture

NANOSIGHT

ULSC-X Lot 041618 2019-05-09 08-37-36



FTLA Concentration / Size graph for Experiment:
ULSC-X Lot 041618 2019-05-09 08-37-36



Averaged FTLA Concentration / Size for Experiment:
ULSC-X Lot 041618 2019-05-09 08-37-36
Error bars indicate +/- 1 standard error of the mean

Included Files

ULSC-X Lot 041618 2019-05-09 08-40-14
ULSC-X Lot 041618 2019-05-09 08-40-48
ULSC-X Lot 041618 2019-05-09 08-41-23
ULSC-X Lot 041618 2019-05-09 08-41-57
ULSC-X Lot 041618 2019-05-09 08-42-32

Details

NTA Version: NTA 3.3 Dev Build 3.3.104
Script Used: SOP Standard Measurement 08-37-36AM 09May2019.txt
Time Captured: 08:37:36 09/05/2019
Operator: MB
Pre-treatment:
Sample Name: ULSC-X LOT:041618
Diluent: 100 water
Remarks:

Capture Settings

Camera Type: sCMOS
Laser Type: Green
Camera Level: 15
Slider Shutter: 1206
Slider Gain: 366
FPS: 25.0
Number of Frames: 749
Temperature: 22.9 °C
Viscosity: (Water) 0.931 - 0.932 cP
Dilution factor: 1 x 10e2
Syringe Pump Speed: 30

Results

Stats: Merged Data
Mean: 133.1 nm
Mode: 84.5 nm
SD: 61.3 nm
D10: 78.8 nm
D50: 111.2 nm
D90: 209.8 nm

Stats: Mean +/- Standard Error
Mean: 133.3 +/- 4.2 nm
Mode: 96.4 +/- 4.6 nm
SD: 60.2 +/- 3.8 nm
D10: 78.4 +/- 2.5 nm
D50: 112.9 +/- 4.2 nm
D90: 207.0 +/- 3.4 nm
Concentration: 2.26e+10 +/- 9.57e+08 particles/ml
11.5 +/- 0.5 particles/frame
13.3 +/- 0.6 centres/frame

Exosomes

Small packets of information which carry proteins, mRNA and miRNA

2.26 x 10¹⁰ per ml

What is the Intended Use of OUR PRODUCT?

- The manufacturer will supply OUR PRODUCT for use in finished *cosmetic products only*
- OUR PRODUCT is not approved for use as a drug
- The manufacturer does not intend for OUR PRODUCT to be used as a drug
- Purchasers of OUR PRODUCT must affirm that they intend to use OUR PRODUCT *only* in cosmetic products

What Are Cosmetic Uses of OUR PRODUCT?

- The FDA defines **cosmetics** as products that are intended:
 - to be rubbed, poured, sprinkled, or sprayed on, or applied to the human body
 - for use *only* to cleanse beautify, promote attractiveness, or alter appearance
- Cosmetic products cannot be injected or ingested
- Cosmetic products cannot be intended to have a drug effect

FDA Guidance on Cosmetic Uses/Claims

An illustration of three cosmetic items: a bottle of liquid, a tube of cream, and a jar of cream, all with a woman's face on the label.

Examples of claims cosmetics are allowed to make:

- ✓ *Cleanses skin*
- ✓ *Enhances beauty*
- ✓ *Promotes attractiveness*
- ✓ *Alters appearance*

An illustration of three cosmetic items: a bottle of liquid, a tube of cream, and a jar of cream, all with a woman's face on the label.

Examples of claims cosmetics may **NOT** make:

- X *Treats a disease, such as acne, eczema, or rosacea*
- X *Increases collagen*
- X *Revives cells*

Our Manufacturer Will:

- Supply high quality PRODUCT as a raw material for use in finished cosmetic products
- Manufacture OUR PRODUCT in accordance with FDA's cosmetic Good Manufacturing Practices
- Conduct microbial testing and provide documentation of test results
- Not provide labeling claims for finished products that contain OUR PRODUCT

Purchasers of OUR PRODUCT Will:

- Be responsible for compliance with applicable regulatory requirements for *manufacturing* the finished cosmetic product
- Be responsible for compliance with applicable regulatory requirements for testing and ensuring the *safety* of the finished cosmetic product
- Be responsible for compliance with applicable regulatory requirements for *labeling* the finished cosmetic product
- Be responsible for *promotional claims and materials* of the finished cosmetic product

Please contact us for supply inquiries:

Syed Raheel

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