
SIGDerma Clean & Sensitive (SIG1459)

Description

SIG1459 is a proprietary isoprenylcysteine (IPC) molecule derived from a novel technology platform discovered and developed by Dr. Jeffry Stock at Princeton University. Clinically proven and laboratory tested to have anti-acne, anti-inflammatory, antibacterial and several other properties that benefit the skin, SIG1459 offers a broad range of applications that can be used in a variety of anti-acne products. SIG1459's robust *in vitro*, clinical and safety data has been published in a peer-reviewed publication, highlighting the many benefits this unique molecule offers over Benzoyl Peroxide (BPO), salicylic acid and other anti-acne ingredients.

Appearance

Free flowing, beige solid

INCI

Disodium
Tetramethylhexadecenylcysteine
Formylprolinate

Preservatives/Stabilizers

None

Registration

CAS- No:
2040469-40-5, 2422121-34-2

Characteristics/Specifications

-SIG1459, mixture of isomers: > 90%

Efficacy

-Data published in a peer-reviewed publication
-Anti-acne: SIG1459 clinically proven to outperform BPO and vehicle with statistical significance over 8 weeks in those with acne prone skin
-Not irritating: Unlike BPO which is harsh on the skin and causes bleaching, SIG1459 is efficacious without the side effects

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-Anti-bacterial activity: SIG1459 kills *C. acnes* (MIC = 8.5 μ M, MBC = 16.1 μ M) and eradicates *C. acnes* biofilm formation effectively (MBEC = 12.5 μ M) 100x to 1000x better than BPO and salicylic acid

-Anti-inflammatory activity: *C. acnes* bind to toll-like receptors (TLRs) triggering inflammation. In epidermal keratinocytes, SIG1459 strongly inhibits TLR2/2 and TLR2/6 induced IL-8 cytokine release. Moreover, SIG1459 blocks T-cell receptor induced IL-17 production, which has been reported to contribute to acne pathogenesis as well

-Proposed Mechanism of Action (MOA): By killing *C. acnes* and specifically blocking TLR2/2 and TLR2/6 induced inflammation, SIG1459 addresses 2 of the main factors that cause acne

Application

Lotions, Creams, Serums, Face Masks, Lip Care, Body Care, and Make Up

Compatibility

Miscible in water (>10%). Insoluble in alcohols or oils. Stable from weak acid to alkaline conditions. Not stable to strong acid conditions (pH<4) and heat treatment

Application concentration

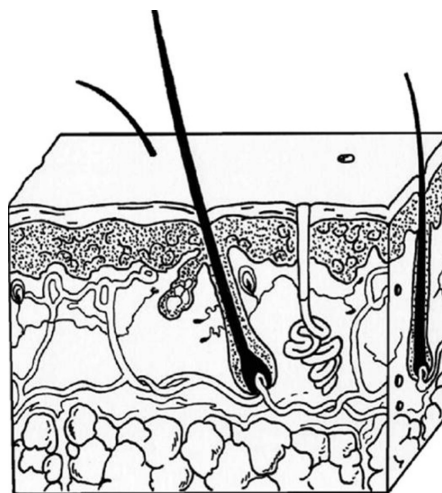
0.1% to 1%

Toxicology

- non-irritating to skin
- non-irritating to under eye area
- non-phototoxic
- non-mutagenic (Ames)

Storage & Shelf life

- Below 20°C, Keep tightly sealed, store away from moisture, strong heat and sunlight
- Minimum 2 years shelf-life



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