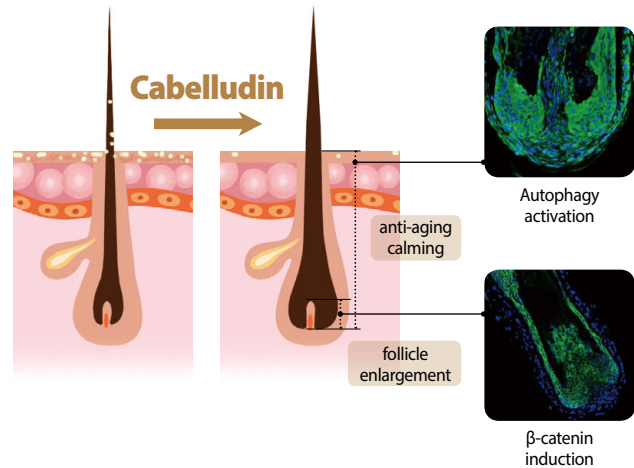


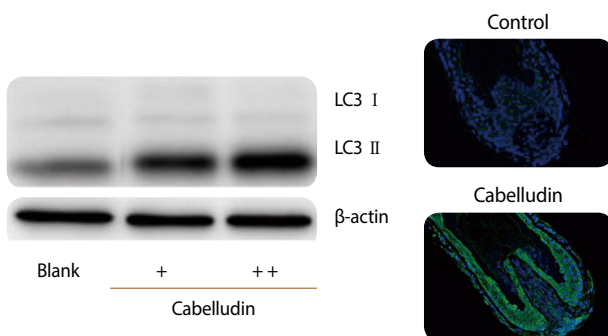
Description

- Healthy scalp skin is essential for maintaining healthy hair and provides an environmental barrier against UV stress, heat, and pollution that causes aging of the scalp skin.
- **Cabelludin**, a proprietary peptides complex, is specifically developed for scalp care. It has a dual-mode of action through which autophagy and β -catenin signaling are activated, and ultimately strengthens barrier functions in scalp skin, relieves local inflammation, and modulates the morphogenesis and regeneration of DP cells. **Cabelludin** clinically reduces the dandruff symptom and sebum secretion. It also decreases scalp skin redness and TEWL, providing a significant scalp calming effect.



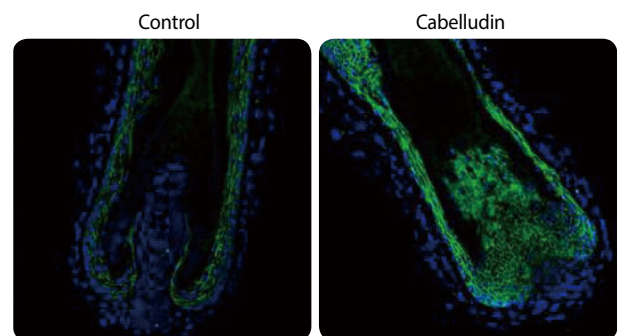
Biological Activity

Autophagy activation



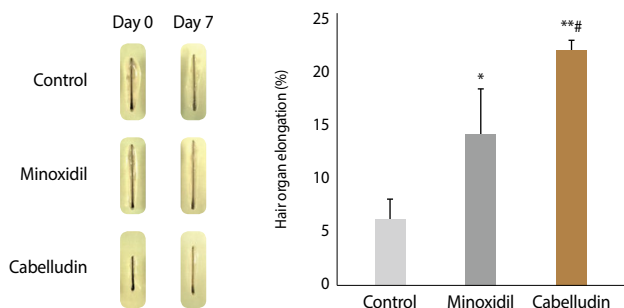
Cabelludin activates autophagy in human keratinocyte cells (left, increases of LC3-II) and hair follicle right, increases of green staining)

β -catenin induction



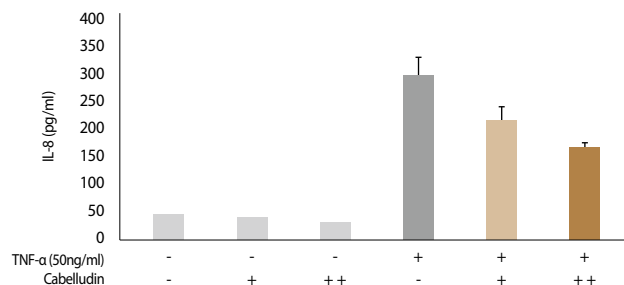
Cabelludin induces β -catenin in the hair follicle (increases of green staining)

Hair organ elongation



Cabelludin promotes hair organ elongation after 7 days treatment

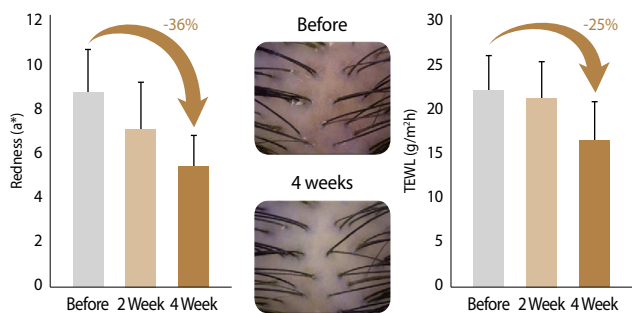
Anti-inflammation



Cabelludin reduces TNF-α-mediated IL-8 secretion in the human keratinocyte cells

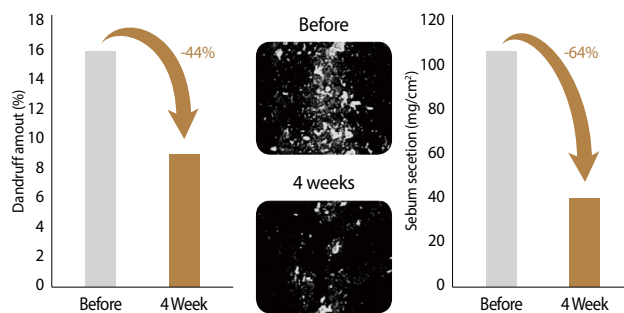
Clinical Efficacy

Scalp calming effect



Cabelludin reduces scalp redness and TEWL

Anti-dandruff effect



Cabelludin reduces scalp dandruff and sebum secretion

PCPC/INCI Name

- Pentasodium Tetracarboxymethyl Palmitoyl Dipeptide-12, Tripeptide-79

Composition

- Cabelludin, 1,2-Hexanediol, Water

Application

- Scalp care
- Anti-greasiness
- Anti-inflammation
- Anti-scalp aging

Recommended Dosage

- 1~2% for Hair tonic, Hair essence, Hair lotion
- 0.01~0.1% for Shampoo