

# CUTI-PRO™

- Purpose for Anti-Hair aging agent against UV

Applicable products of CUTI-PRO™

Hair care / Scalp care

Cosmetics : Shampoo, Hair conditioner, Hair treatment, Hair pack



## What is CUTI-PRO™ ?

CUTI-PRO™ is an Anti-Hair aging agent that maintains healthy and glossy hair condition. CUTI-PRO™ prevents hair aging like hair bleaching, graying by inhibiting melanin, tryptophan degradation and protecting keratin and cuticles of the hair.

### About "CUTI-PRO™"

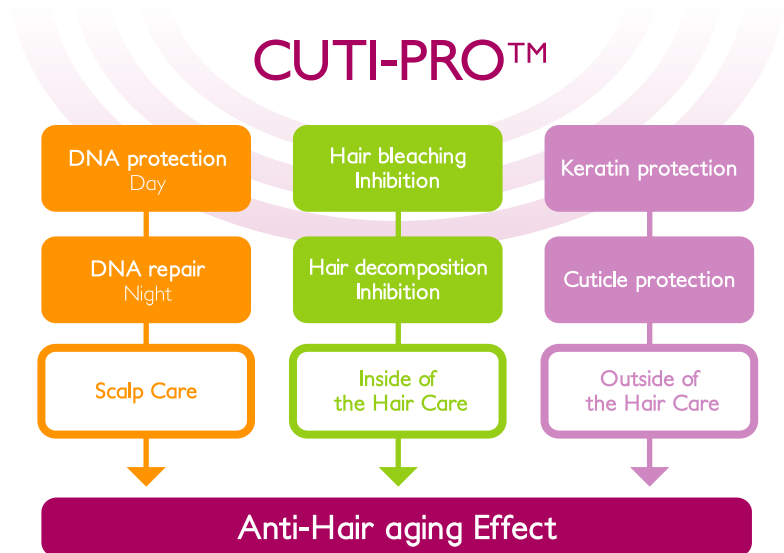


Common name	White lotus flower
Main component	Polyphenol, Vitamin B

- White lotus flower is considered a symbol of pure, clean, innocent, beauty.
- White lotus flower has been used to various area as a medicine for a long time.
- White lotus flower grows well and even in dirt environment and remains fresh and clean status.

### Proposed mechanism for CUTI-PRO™

- CUTI-PRO™ care scalp day & night with DNA protection and DNA repair.
- CUTI-PRO™ reduce hair aging by inhibiting hair bleaching and hair decomposition accelerated by UV.
- CUTI-PRO™ has excellent keratin protection and cuticle protection effect for healthy & glossy hair.



### SPECIFICATION

INCI Name

Appearance

Total Polyphenol

Packing unit

Shelf life

Recommend dosage

Water / Butylene Glycol / Nelumbo Nucifera Flower Extract

Light yellow Liquid

≥ 0.1%

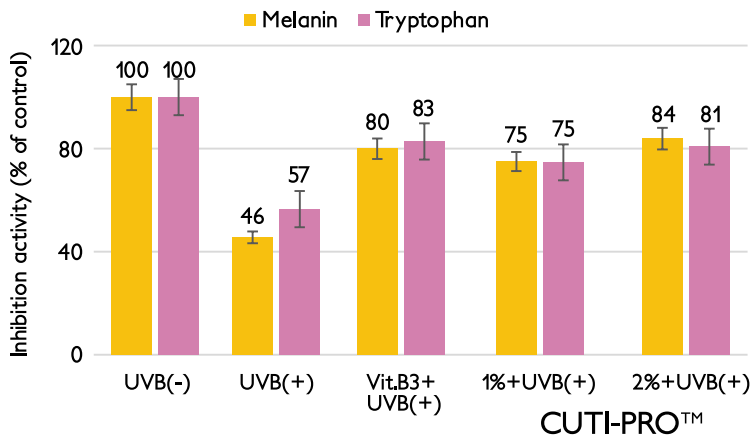
5kg / 10kg / 20kg

2 year

0.5% ~ 2%

# Main Biological Effects for Cosmetics

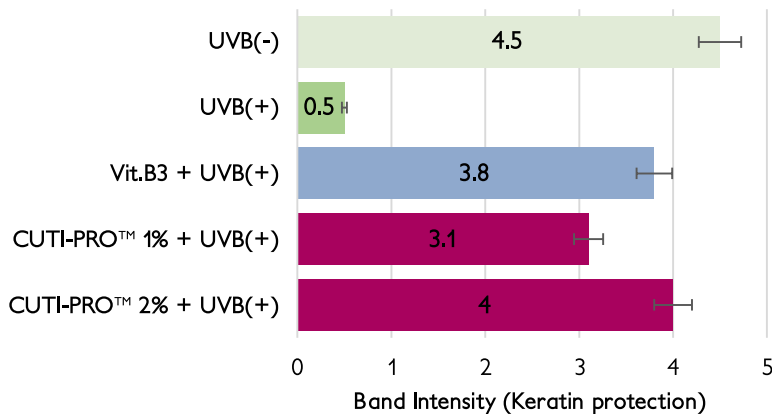
## ● Inhibition of Hair bleaching & Hair decomposition



### [Melanin / Tryptophan degradation]

- When exposed to UV light, melanin and tryptophan of the hair is decrease and may cause hair bleaching and hair decomposition.
- CUTI-PRO™ showed good protection activity for both melanin and tryptophan against UVB.

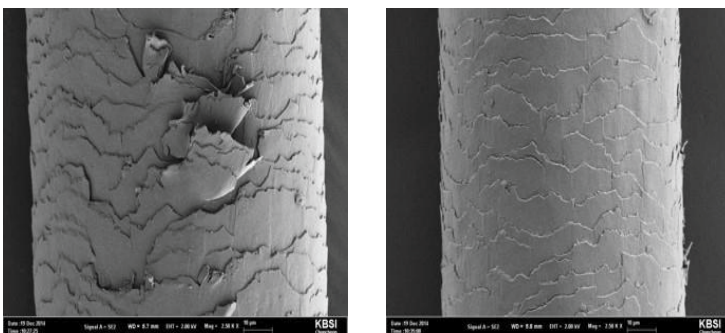
## ● Keratin protection effect



### [Keratin isolation / SDS-page test]

- Our hair is consisting a large portion of Keratin but can be damaged or decomposed by UV light.
- For study, Isolation of Keratin from the human hair and carried out SDS-page test.
- CUTI-PRO™ showed good keratin protection effect against UVB.

## ● Cuticle protection effect



UVB(+)

UVB(+) + CUTI-PRO™

### [Human hair SEM image]

- With Human hair SEM image, check hair cuticle protection effect of CUTI-PRO™.
- After treated UVB to human hair for 10hours and checked cuticle damage.
- When treated 2% of CUTI-PRO™, it showed good cuticle protection effect against UVB.