



RootBioTec HW  
Prevents hair loss –  
ensures fuller hair



# RootBioTec HW

## Prevents hair loss – ensures fuller hair

### **An Extract from a Hairy Root Culture from Basil to Treat Hair Loss**

Based on an extract from a hairy root culture from basil, RootBioTec HW helps reduce hair loss by inhibiting 5 $\alpha$  reductase activity and by stimulating dermal papilla cells.

Hair loss affects both women and men. In 95% of all cases of hair loss occurring exclusively on the head, the cause is an increased sensitivity of the hair follicles to the androgenic hormone dihydrotestosterone (DHT). Androgenic alopecia, which is the name of the condition, is hereditary, permanent and continues as one gets older.

RootBioTec HW was shown to strongly inhibit the activity of 5 $\alpha$  reductase II (the enzyme that promotes the conversion of testosterone to DHT). Meanwhile, another study was conducted with starving dermal papilla cells, the cells that are responsible for hair growth. RootBioTec HW improved their proliferation by 23%, indicating a hair regrowth effect. In a clinical study conducted for two months on volunteers with mild to moderate hair loss, RootBioTec HW showed the capacity to reduce hair loss by 26% after the first month and 31% following the second month.

This suggests that RootBioTec HW is a potent cosmetic active that will prevent hair loss and enable users to regain fuller and denser hair.

### **RootBioTec HW**

- Prevents hair loss
- For fuller hair
- Stimulates hair papilla cells
- Rejuvenates the scalp

### **Applications**

- Hair serum
- Conditioner
- Hair pack
- Anti-aging hair care
- Hair oil (with oil-soluble version)

### **Formulating with RootBioTec HW**

- Recommended use level: 1–3%
- Incorporation: For cold processes, dissolve RootBioTec HW into the aqueous phase. In cold/hot processes, add during the cooling phase below 60°C
- Thermostability: For short periods, temperatures of up to 60°C will not affect the stability of RootBioTec HW.

### **INCI (EU/PCPC) Declaration**

RootBioTec HW (water-based standard version):  
Ocimum Basilicum Hairy Root Culture Extract (and)  
Alcohol (and) Aqua/Water

RootBioTec HO (oil-based version): Ocimum Basilicum Hairy Root Culture Extract (and) Helianthus Annuus (Sunflower) Seed Oil (and) Cocos Nucifera (Coconut) Oil

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### **Hair Loss Affects Men and Women**

