

Hairdian AP

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Hairdian AP is a natural plant material developed for hair loss. The bioactive ingredients are extracted from *Platyclusus orientalis*, *Zingiber officinale*, *Trifolium pratense* and *Artemisia argyi* by two innovative techniques named ultrasonic-assisted semi bionic extraction and thermal infiltration integrated extraction. It focuses on the regulation of hair follicle cycle and could effectively reduce hair loss via promoting autophagy of dermal papilla cells (DPCs) and up-regulating the expression of some cell growth factors.

INCI Name:

Propanediol, *Platyclusus orientalis* Leaf Extract, *Zingiber officinale* (Ginger) Root Extract, *Trifolium pratense* (Clover) Leaf Extract, *Artemisia argyi* Leaf Extract.

Features and benefits:

Promote autophagy of DPCs and up-regulate the expression of some cell growth factors;
Promote synthesis of collagen XVII and regulate sebum secretion;
Effectively reduce hair loss.

Applications:

Be suitable for shampoo, hair care and scalp care products.

Specifications:

Appearance	Yellow to brownish yellow liquid
Odor	Characteristic odor
Density (20°C)	1.02-1.10 g/cm ³
Refractive index (20°C)	1.400-1.500
Content of total phenols (UV)	1.2-2.0%
Colony number	< 100 CFU/ml
Yeast and molds	< 10 CFU/ml
Hg	< 0.1 mg/kg
As	< 0.1 mg/kg
Pb	< 5.0 mg/kg
Cd	< 1.0 mg/kg

Recommended use level:

0.5% - 5.0%

Use method:

Add below 45°C, then stir until mix evenly.

Package:

10.0 kg/drum, 25.0 kg/drum.

Storage:

It shall be stored in a ventilated and dry warehouse with temperature not higher than 30°C and kept sealed and away from light.

Shelf life:

Two years.