

TrichoConcept®

Personalised Treatment for Alopecia



TrichoConcept® is an innovative line of compounding vehicles and final products developed to provide advanced personalised alopecia treatment.

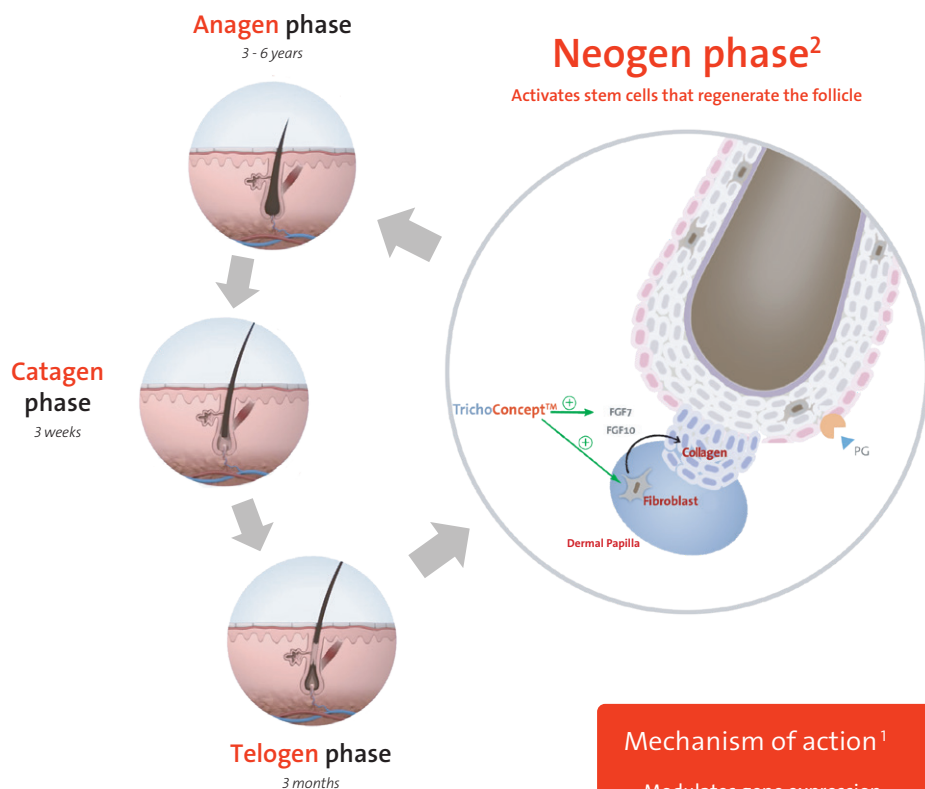
GPP



Fagron
Compounding
Services

TrichoTech® technology

Acts in the Neogen Phase



Undesired ingredients like alcohol, propylene glycol and aggressive surfactants in common vehicles can irritate the scalp. They cause dryness, itching, dandruff and alter the hydrolipidic mantle, resulting in possible interactions with active ingredients.

Fagron developed a new line of multifunctional vehicles with TrichoTech® technology, an intelligent phytocomplex acting on the balance of the entire hair system – bulb, scalp and shaft – favouring the Neogen phase in the treatment of alopecia.

Mechanism of action¹

- Modulates gene expression of fibroblasts' growth factors in the Neogen Phase (Fig. 5).
- Stimulates fibroblasts' proliferation, increasing the number of cells in phase S/G2/M (Fig. 4).
- Increases collagen synthesis by 25-30% (Fig. 2).
- Hydrates, regulates excess sebum and calms itching.

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TrichoTech[®] evidence

In vitro studies

Stimulates fibroblast proliferation¹

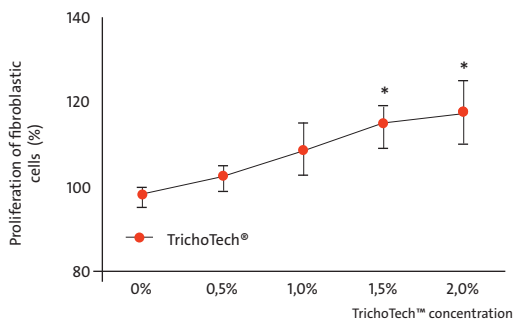


Fig. 1

Result of cell proliferation by the MTT method after 24 hours exposure to different concentrations of TrichoTech[®]. (*) $P < 0.05$

Increases the production of collagen in fibroblasts by 25-30%¹

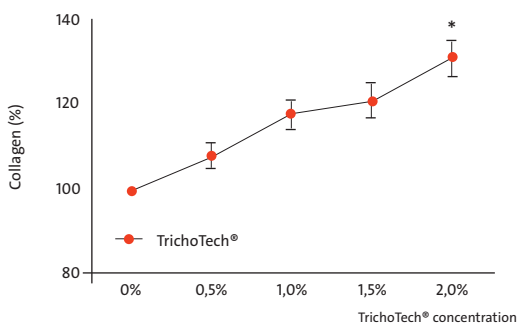


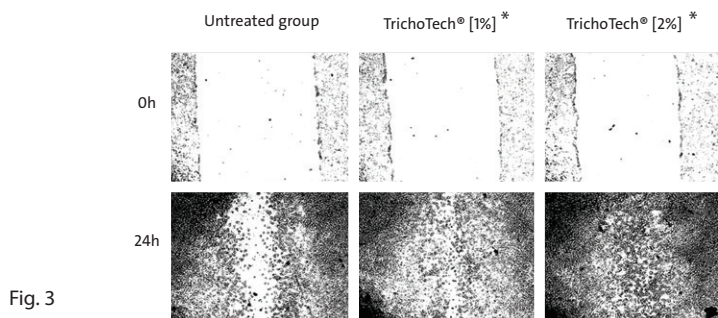
Fig. 2

Total collagen content in fibroblasts, measured by the incorporation of Sirius Red dye after 24 hours of exposure to different concentrations of TrichoTech[®]. (*) $P < 0.05$

TrichoTech® evidence

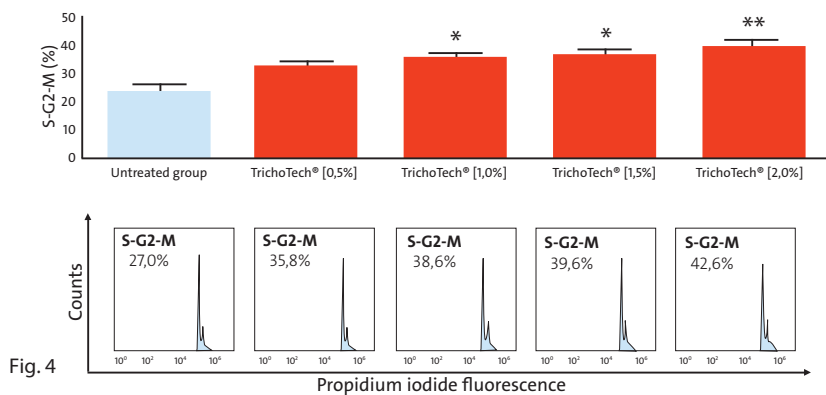
In vitro studies

Stimulates cell migration by regenerating tissue¹



Photographic representation of *in vitro* samples subjected to the simulation of lesions and exposed for 24 hours to different concentrations of TrichoTech®. (*) $P < 0.05$

Increases the number of cells in the Neogen phase (S/G2/M)¹

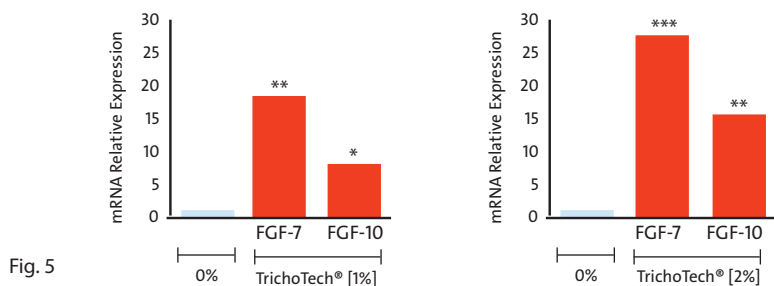


Percentage of cells in S-G2-M phase after 24 hours of exposure to different concentrations of TrichoTech®. Representative histograms of proliferative activity. (*) $P < 0.05$

TrichoTech[®] evidence

In vitro studies

Increases gene expression (mRNA) of growth factors¹



Relative levels of mRNA expression of the FGF-7 and FGF-10 genes in fibroblasts. Evaluation made by (q)PCR.
(*) $P < 0.05$; (**) $P < 0.01$; (***) $P < 0.0001$

Visible results in 60 days' treatment



Before



After

Minoxidil 7%, TrichoFoam[®] 75 ml

TrichoConcept® products

7 Vehicles with TrichoTech® technology



TrichoOil® is a **100% natural** lipid vehicle activated by TrichoTech®, an intelligent phytocomplex that acts on the entire hair system. It solubilises liposoluble actives and brings them to the BSS (Bulb, Scalp and Shaft) hair system through the lipid layer, aiding fatty acids.

TrichoOil® contains essential fatty acids that promote restoration and hydration of the scalp and shaft.

TrichoOil® Benefits:

- Seals and strengthens the cuticle
- Decreases porosity of the cuticle
- Replaces fatty acids of the hair fibre
- Restores and hydrates the scalp



TrichoWash® is a shampoo made with **non-irritating ingredients**.

The formulation of TrichoWash™ cleans without destroying fatty acids and promotes lasting hydration, softness and flexibility to the hair.

With antioxidant action, **TrichoWash®** delivers multiple benefits that favor the delivery of active ingredients.

Studies suggest the combinations of TrichoOil®, TrichoWash® and TrichoCond® demonstrate a significant increase in gloss and hydration, **and can be used in all types of hair.**³

TrichoWash® Benefits:

- Protects against visible signs of aging hair
- Replaces amino acids and proteins favoring fibre repair
- Detoxifies, hydrates and purifies the scalp



TrichoCond® is a high-power moisturising conditioner.

TrichoCond® balances sebaceous production on the scalp, keeping the structure aligned and firm. The adjusted pH of TrichoCond® (always less than 4.5) promotes the final **cohesion of the cuticles**.

TrichoCond® provides a source of peptides needed to maintain the proteins present in the hair cuticle and regulates the isoelectric point of the hair, **preventing cuticle breakage** and exposure of the cortex.

For best results, use in combination with TrichoWash® and TrichoOil®.

TrichoCond® Benefits:

- Reconstructs the cuticle
- Protects against visible signs of aging
- Replaces of amino acids and proteins, favouring fibre repair
- Promotes cohesion strengthening and softness hydration of the cuticle

TrichoConcept® products

7 Vehicles with TrichoTech® technology



TrichoSerum® is a unique hair texturing system designed to provide three-dimensional brightness, as well as a **smoothness and anti-frizz action**.

It should be used on hair after washing with TrichoCond®.

With the smart technology of TrichoTech®, it **seals the cuticles and offers effective heat and colour protection** for chemically treated hair.

TrichoSerum® Benefits:

- Conditioning
- Three-dimensional brightness
- Anti-frizz action
- Heat protection
- Colour protection



TrichoSol® is a highly spreadable hydrophilic solution containing mineral salts of vegetable origin. It is **free from alcohol and propylene glycol**.

TrichoSol® has proven to be an ideal and stable vehicle for application of **minoxidil base up to 7%**, the only form of minoxidil therapeutically proven.⁴

TrichoSol® provides a simplified compounding technique.

TrichoSol® features patented TrichoTech® technology to maximise prescription results by the physiological improvement of the cellular environment.

TrichoSol® Benefits:

- Soft formula without propellants
- Unique and proven stability with water-soluble and liposoluble APIs (Active Pharmaceutical Ingredients) and DCIs (Dermaceutical Ingredients)
- Non-irritating vehicle
- Does not cause hair dryness



TrichoFoam® is an **alcohol-free and propylene glycol-free foam vehicle**, for water soluble and some liposoluble actives, formulated with gentle, non-irritating and sensory-pleasing ingredients.

TrichoFoam® has been shown to be an ideal and stable vehicle for application of **minoxidil base up to 7%**, the only form of minoxidil that is therapeutically proven.³

TrichoFoam® provides a **simplified compounding technique** and features patented TrichoTech® technology to maximise prescription results by the physiological improvement of the cellular environment.

TrichoFoam® Benefits:

- Soft formula without propellants
- Unique compatibility and proven stability with APIs and DCIs water soluble and liposoluble, such as minoxidil base
- Provides soft foam with minimal oiliness
- Drip-free



TrichoCream® is a natural hydrophilic gel cream based on refined olive oil and shea butter for **eyelashes, eyebrows and beards**.

This unique formulation provides antioxidant and emollient properties.

TrichoCream® is a non-greasy topical vehicle with adequate viscosity for **local use**.

TrichoCream® Benefits:

- Formulated with natural emulsifiers containing high concentrations of triglycerides of linoleic and oleic acids
- Contains tocopherol, an antioxidant that protects APIs
- Moisture rich
- Lightweight

TrichoConcept® is free of

P

PARABENS

 CH_2O

FORMALDEHYDE

PABAP-AMINO
BENZOIC ACID H_3BO_3

BORIC ACID

BABBBENZYL ALCOHOL
BENZYL BENZOATE**PG**

PROPYLENE GLYCOL

TCS

TRICLOSAN

 $\text{C}_4\text{H}_8\text{O}_2$

1,4-DIOXANE

MOMINERAL OIL
PETROLATUM**PO**

PEANUT OIL

L

LANOLIN

ACARTIFICIAL
COLORANTS

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References: 1. Amaral, F., Jardim, M., de Souza Antunes, V.M., Michelin, L.F.G., dos Santos, B.A.R., Barbosa, C.M.V., Spindola, D.G., Bincoletto, C. and Oliveira, C.R. (2017) In Vitro Effects of the Phytocomplex TrichoTech™ on Human Fibroblasts: Proliferative Potential and Effects on Gene Expression of FGF-7 and FGF-10. Journal of Cosmetics, Dermatological Sciences and Applications, 7, 1-13. 2. Bernard, B. A. The Human Hair Follicle, A Bistable Organ? Experimental Dermatology, 2012, 21, 401-403. 3. Data on file 4. Bernard BA. Advances in Understanding Hair Growth. F1000 Res. 2016 Feb 8;5. pii: F1000 Faculty Rev-147.

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